ANNUAL REPORT

by

Chief Engineer

S. A. LUBETKIN

to the

PASSAIC VALLEY

SEWERAGE COMMISSIONERS

FOR OPERATIONS DURING

THE YEAR

1976

PASSAIC VALLEY SEWERAGE COMMISSIONERS
600 WILSON AVENUE
NEWARK, N.J. 07105
(201) 344-1800

February 23, 1977

Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Gentlemen:

I herewith submit my annual report to the Commissioners for the year 1976. It is composed of three parts.

Part I is a series of special reports on various subjects that either have a bearing on the Passaic Valley Sewerage Commissioners' operations and future operations, or that may affect the residents of the Passaic Valley District. Some of the reports are repeats of reports that have been issued during the year, but they have been updated. These repeat reports are so indicated by a month in parenthesis which indicates the date of the original report.

Part II concerns discharges to the Passaic River or any of its tributaries within the Commissioners' policing area (from the Great Falls in Paterson to the mouth of the river at Newark Bay) that were found to be polluting and that were terminated or eliminated during the year 1976. These former violations are, in a sense, a measure of the Commissioners' success in their fight to remove pollution from the lower Passaic River.

Part III concerns discharges that were still violating as of the end of 1976, with a summary of how they were detected, together with what has been done to date in the Commissioners' attempts to have them halted.

Very truly yours,

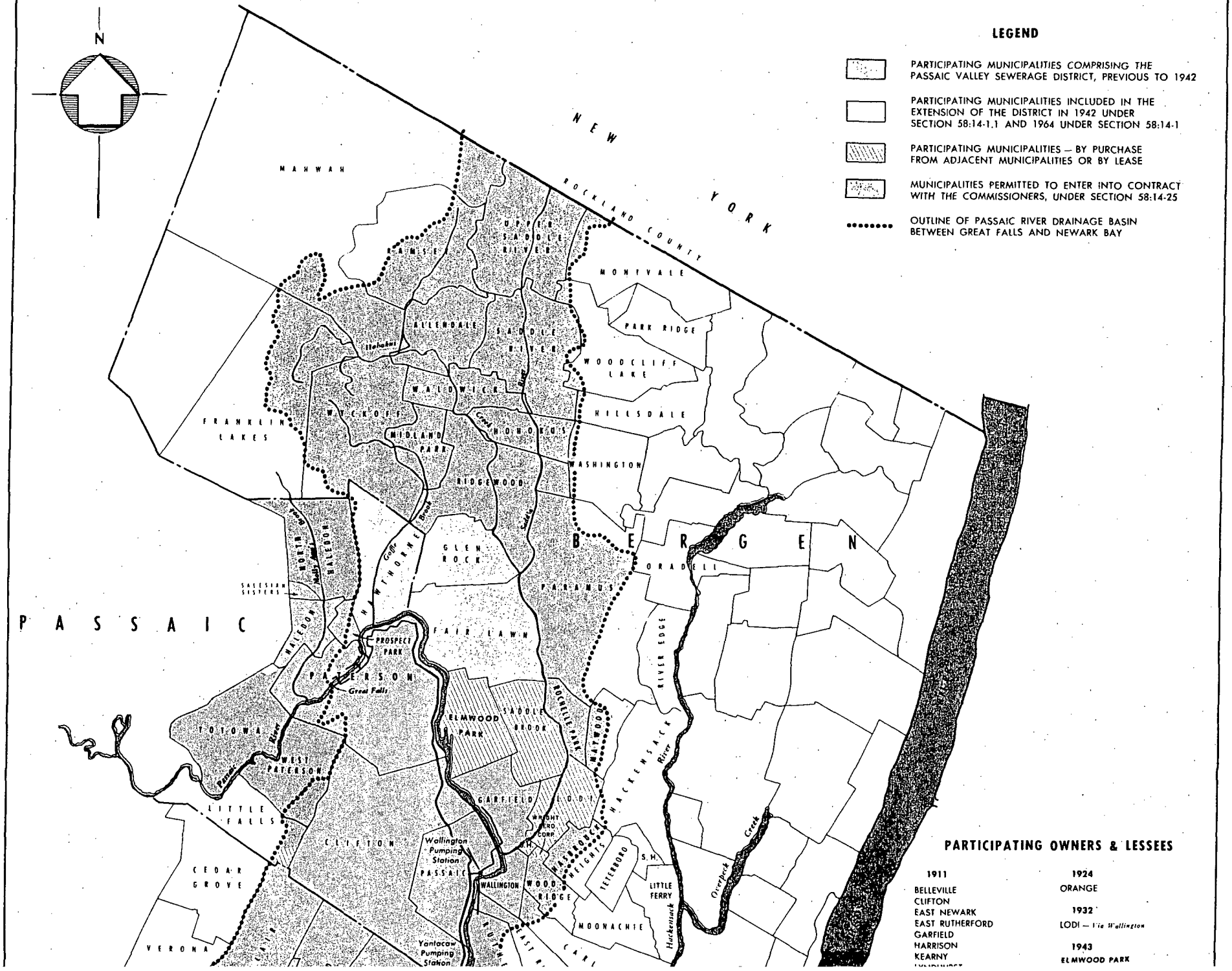
S. A. Lubetkin

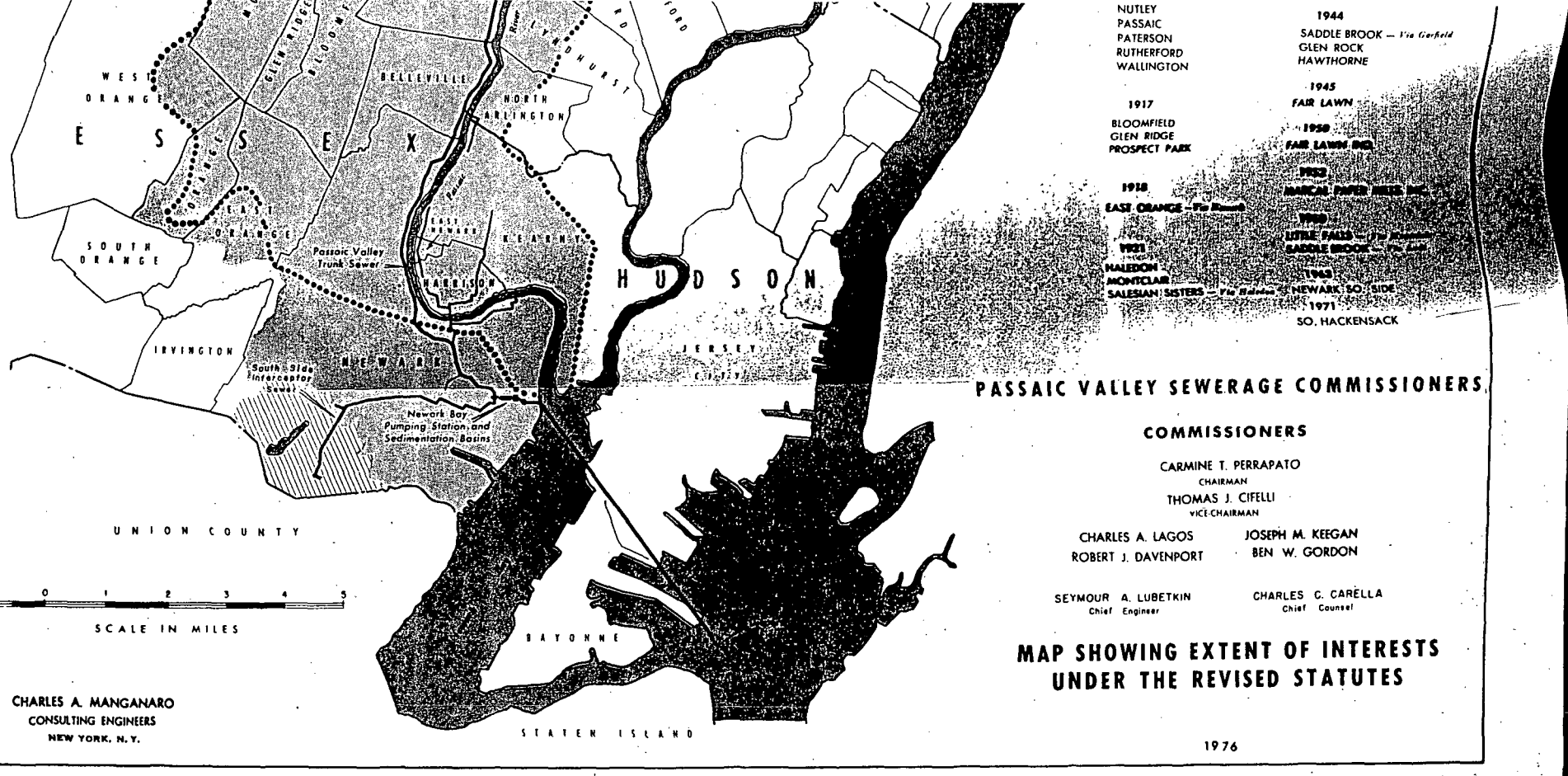
S. A. Lubetkin,
Chief Engineer

TABLE OF CONTENTS

PART I - SPECIAL REPORTS

PROPOSED AREA PLATE A





CHARLES A. MANGANARO
CONSULTING ENGINEERS
NEW YORK, N. Y.

PASSAIC VALLEY SEWERAGE COMMISSIONERS

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MAP SHOWING EXTENT OF INTERESTS UNDER THE REVISED STATUTES

1976

PART II - POLLUTION VIOLATIONS TO THE PASSAIC RIVER OR ITS TRIBUTARIES IN THE COMMISSIONERS' DISTRICT AND THEIR ELIMINATIONS DURING 1976

PART III - POLLUTION VIOLATIONS TO THE PASSAIC RIVER AND ITS TRIBUTARIES IN THE COMMISSIONERS'

SPECIAL REPORT NO. 1

REPORT ON PVSC IMPROVEMENT PROGRAM

Many times a description of the PVSC treatment plant and a description of the proposed improvements are requested. This report attempts to answer these questions, together with estimated costs of the work to be done.

The present system of the PVSC consists of the following structures:

1. Administration and Laboratory Building
2. Scum, Screenings and Grit Incinerator
3. Screening and Grit Chamber
4. Pumping Station
5. Gate House
6. Maintenance Building
7. Sedimentation Basins
8. Chlorination Facilities
9. Head House
10. Sludge Thickening and Storage Tanks
11. Sludge Pumping Station and Dock
12. Outfall

A more detailed description of the present systems follows, with a detailed description of future improvements being described immediately following that.

1. The Administration and Control Building permits a total management system for the related functions of the sewage treatment plant, its intercepting sewer, flow meters from municipalities, and the signals received from sampling stations on the Passaic River. It brings together one of the most modern sewerage facility laboratories with engineering, administrative, and control functions. In addition, there is a large room set aside for future computer metering and control functions for the new facilities and for monitoring contributing industries and the Passaic River. The building is an "L" shaped, 2 story plus basement, brick-faced masonry and reinforced concrete structure, approximately 107 feet long by 94 feet wide, containing a total usable area of approximately 21,000 square feet.

2. The Incinerator Building contains two furnaces, each rated at a maximum capacity of 14,600 pounds per hour, two oil and grease flotation tanks, two grit storage bins, one ash storage bin, two air compressors, a central instrument and control room, and other necessary appurtenant equipment. The Incinerator's function is to destruct and render inert, all grit, screening and floating materials intercepted by the grit and screenings chamber for ultimate disposal, without producing deleterious effect to the environment. Necessary air pollution control devices are incorporated to comply with local, State and Federal requirements. The building consists of a structural steel frame, brick-faced masonry and reinforced concrete structure, 120 feet long, 92 feet wide, and 60 feet high.

3. The Grit and Screenings Chamber represents the initial treatment unit of the sewage plant, and its function is to remove grit, certain suspended matter, and floating material from the flow. It is designed to process peak flows up to 720 million gallons per day, a capacity sufficient to the year 2040. It is a reinforced concrete structure, approximately 330 feet long, 135 feet wide, and 35 feet

deep. Its superstructure, approximately 135 feet long, 48 feet wide, and 27 feet high, is a brick-faced masonry structure.

The chamber consists of an inlet structure with two gates, a trash rack, a two-compartment aerated forebay, an upstream automated grease skimming device, 6 bar screens, 6 grit channels, a downstream grease skimming device, screenings, grit, grease and oil preparation and conveyance equipment, dewatering facilities, an effluent channel, and a diversion chamber.

The inlet structure, which intercepts the flow from the existing main interceptors, includes a chamber for connection of a future relief interceptor force main. It contains a trash rack with an automated raking device for the removal of large floating and suspended solids, such as logs and cans. Provision is made to grind this material for return to the flow, and subsequent removal by the screens.

Aeration facilities are provided in the forebay to aid in grease flotation and limit settlement of solids. The forebay is split into two compartments to permit dewatering and cleaning of either side. An automated skimming device at the end of the forebay operates on a time cycle to sweep the liquid surface of floating greases and oils. These materials are then directed to either of two wells, where they are homogenized and then pumped to the separation tanks in the Incinerator Building.

The sewage flow then enters six parallel channels, each of which contains an inlet gate, an automatic bar screen with 7/8 inch openings, a grit elevator, grit collectors, and an outlet gate. The mechanically operated grit collectors, in the channels,continuously scrape grit to the grit elevator. The inlet and outlet gates enable the isolation of a channel for cleaning, maintenance, and dewatering purposes.

The material intercepted by each bar screen is automatically raised and dropped into a grinder from which it passes to a pneumatic ejector which automatically conveys it directly to either furnace in the Incinerator Building. The grit, raised by each of the grit elevators, is directed to a screw conveyor which directs it either to a pneumatic ejector for automatic conveyance to the storage bins in the Incinerator Building, or back to the channels for rewashing. Grit and screenings quantities are measured, and this data, along with signals from motors, valves, ejectors, flow rates and levels, are transmitted to the control center for the integrated operation and control of the incinerator facilities.

4. The Pumping Station contains an engine room which houses two diesel radial engine-driven variable speed centrifugal pumps, each of 200 mgd capacity, and two electric motor-driven constant speed centrifugal pumps, each of 130 mgd capacity. The station also houses meters and controls, emergency diesel generators, a machine shop, stock rooms, lubrication oil reclaim units, and an administration wing containing offices.

5. The Gate House, also called the valve chamber, contains two venturi meters and control devices which direct flow into one of two discharge conduits from the pumping station - an influent conduit leading to 16 sedimentation basins, thence to the Head House; and an emergency conduit which bypasses the basins and leads to the Head House.

6. The Maintenance Building contains the carpenter shop, paint shop, electrical shop, pipe and sheet metal fabricating shop, in addition to locker and wash rooms for personnel. Also, there is an adjacent blacksmith and iron shop.

7. The Sedimentation Basins are grouped into three sets. Set 1 has 8 tanks and a total of 24 compartments; each compartment is approximately 25 feet wide by 104 feet long. Mechanical sludge scrapers operate the length of each compartment, and cross collectors scrape collected sludge from groups of three compartments (a tank) into hoppers at the influent end. Scum pipes at the effluent channels of the compartments convey skimmings to a well from which the material is pumped to sludge thickening and storage tanks. Set 2 has 4 tanks and a total of 20 compartments; each compartment is approximately 25 feet wide by 72 feet long, and, except that that the cross collectors each serve five instead of three compartments for each basin, operation and equipment are the same as in Set 1. Set 3 has 4 tanks and a total of 16 compartments; each compartment is approximately 25 feet wide by 84 feet long. Except that the cross collectors each serve four compartments of each tank, operation and equipment are identical to Sets 1 and 2. All compartments of all sets are approximately 18 feet deep.

Effluent overflow troughs are provided for the entire perimeter of each tank in addition to the intermediate transverse effluent troughs which number 3 per tank in Sets 1 and 3, and 2 per tank in Set 2.

8. The Chlorination Facilities consist of a railroad spur, a tank car unloading station, and a chlorination building. The building contains a solution water pumping station, rooms for evaporators, chlorinators, a control office, an inspection corridor, and necessary piping and appurtenances.

The railroad spur leads to two tracks adjacent to the unloading station which provides capacity for six (6) 90-ton liquid chlorine tank cars, three of which can be hooked up at any one time, and to a manuevering track which obviates the need for a switching engine.

The chlorination building is an "L" shaped, brick-faced, masonry and concrete, one-story structure with basement, approximately 64 feet long by 52 feet wide. Its basement contains two strainers to cleanse the plant's effluent for use as solution water, and six pumps to feed the solution water to the chlorinators. The basement contains, in addition, two boilers to provide steam for the evaporators and spatial heat, and two air compressors for operating control and two compressors for aid in unloading chlorine from tank cars.

The evaporator and chlorinator rooms on the main floor are separated by an inspection gallery. The six evaporators in the evaporator room each have a capacity of 2,000 pounds per hour to convert liquid chlorine to a gas for use by the chlorinators. The chlorinator room contains six 40,000 lbs. per day chlorinators, four to be used for post-chlorination, one for pre-chlorination, and one for either service.

The office-control room contains chlorine residual analyzers and all other necessary controls and devices for automatic operation and monitoring of each system, and to indicate and sound an alarm if a malfunction should occur. A chlorine leak detection system will turn on high speed ventilating fans, sound an alarm and shut down the systems automatically. Other necessary safety features have been incorporated into the various portions of the work.

The Chlorination Facilities, which are capable of providing a peak rate of 240,000 pounds of chlorine per day, are, to the best of our knowledge, the largest and most modern chlorination facilities in the world.

9. The two-story Head House, located at the effluent shaft, contains eight cylinder-operated sluice gates. Two gates, normally kept open, are located on a conduit which conveys treated effluent to the shaft thence to New York Harbor. The other six gates are used during emergencies to allow excess flow into Newark Bay during times when the capacity of the outfall might be exceeded.

10. Two Sludge Thickening Tanks, each 100 feet in diameter by 25 feet high, provide for sludge thickening. Deflector and scraper blades, located on the bottom of rake arms, move thickened sludge to outlets at the center of each tank, while the supernatant overflows back to the sedimentation basins. Each tank is capable of thickening the sludge to over 10% solids concentration. Additional facilities consist of three emergency sludge lagoons, two 80-foot diameter by 40-foot high sludge storage tanks, and a valve building measuring about 25 feet by 16 feet. The capacity of each storage tank is equal to approximately three days sludge.

11. The Sludge Pumping Station contains four sludge recirculating pumps and four raw sludge pumps. Sludge from the sedimentation basin hoppers flows to the station wet well, from which it is pumped to thickening and storage tanks, and thence to storage until final disposal into barges at the Commissioners' dock.

12. The Outfall Works include all conduits, shafts, tunnels and dispersal facilities from the head house to Robbins Reef in Upper New York Bay (see Plate A). Effluent from the sedimentation basins flows through an effluent conduit to the head house, located at the 14-foot diameter Newark Shaft (at which point a control chamber and gate also permit discharge through a lower conduit into Newark Bay). At the bottom of the Newark Shaft, a 10.5 foot by 12.5 foot outfall tunnel extends about 9,000 feet to the 12-foot diameter Bayonne Shaft. After rising in the Bayonne Shaft, flow is carried through a 12-foot diameter outfall tunnel to the Robbins Reef Terminal Chamber in Upper New York Bay. From the chamber, two 96-inch diameter pipes carry flow to the 3.5 acre dispersal field where flow is discharged through 150 diffusion nozzles spaced at ten-foot centers, from 40 to 60 feet below the surface of the Bay.

In addition, the PVSC also own and operate two pumping stations, one located in Passaic and the other in Clifton. Two maintenance yards, one located in Newark and the other in Paterson, are also owned and operated by the PVSC.

Construction costs of proposed Phase I and Phase II are shown on the following pages. They are split into grant applications and are the Engineer's estimate, as of November 1976, except in the case of contracts indicated (as bid), which are actual bid amounts.

PHASE I CONSTRUCTION COSTS

Grant 1 Contracts			Estimated Construction Cost if Awarded by November 1976
Contract			
480	Stage 1 Modifications to Main Pumping Station and Main Interceptor	(As Bid)	$1,627,000.
481	Influent Facilities	(As Bid)	12,950,000.
484	Final Clarifiers and Effluent Pumping Station		77,608,000.
485	Effluent Facilities		17,608,000.
487	Electric Feeder System	(As Bid)	6,619,000.
491	Sludge Thickeners		20,377,000.
494	Sludge Decant Tanks		6,610,000.
496A	Loading Dock Modifications	(As Bid)	4,356,800.
496B	Sludge Storage and Pumping Facilities		5,922,000.
497	Refuse Removal	(As Bid)	673,000.
	Summation - Grant 1 (say)		$154,350,800.

Grant 2 Contracts		Estimated Construction Cost if Awarded by May 1977
482	Oxygenation Tank and Return and Waste Sludge Pumping Station	77,661,000.
483	Oxygen Production and Storage Facilities	27,896,000.
486A	Operations and Maintenance Building	9,424,000.
489C	Regulator Modifications - First Contract	1,316,000.
492	Sludge Treatment Facilities	76,559,000.
493	Supernatant Treatment	10,454,000.
	Summation - Grant 2	$203,310,000.

Grant 3 Contracts		Estimated Construction Cost if Awarded by May 1977
486B	Computer	3,411,000.
489A	River Monitoring	2,038,000.
489B	Customer Metering	2,171,000.
489D	Regulator Modifications - Second Contract	2,484,000.
486C	Operations Equipment	384,000.
	Summation - Grant 3	$10,488,000.

Grant 4 Contract		
490	Stage 2 Modifications to Main Pumping Station	1,582,000.
	TOTAL CONSTRUCTION COSTS - PHASE 1	$369,730,800.

TOTAL PHASE 1 CONSTRUCTION COSTS (carried from previous page) $369,730,800.

PHASE II CONSTRUCTION COSTS

Grant 5 Construction		Estimated Construction Cost If Awarde by March 1980
498	Primary Clarifiers, Bridge, Demolition & Sitework	$63,561,000
500	Finish Sitework and Landscaping	4,184,000
	ESTIMATED TOTAL CONSTRUCTION COSTS - PHASE II	$67,745,000
	TOTAL CONSTRUCTION COST - PHASE I AND II	$437,475,800
	CONTINGENCY	42,524,200
	TOTAL - PHASE I AND PHASE II CONSTRUCTION (INCLUDING CONTINGENCY)	$480,000,000

Phase I is scheduled to be on line in early 1980, and Phase II is scheduled to b operational in early 1983.

The above costs do not include engineering costs; however, most of the engineeri is done and the PVSC have a grant covering it. However, the cost of supervision an other costs during construction of about $20 million dollars must be added to the above.

In addition, the Commissioners are presently purchasing the land needed for the above work; however, the funds for this are already on hand, and no further financing need be instituted for this item.

The individual items included in Phase I are described in more detail, as follows:

(1) Influent Pumping Station, Modifications to Existing Main Pumping Station, Return and Waste Sludge Pumping Station, Scum and Grease Incinerator, and Appurtenant Conduits, Chambers & Tunnels

The new influent pumping station will contain six screw pumps, each with a capacity of 90 million gallons per day, operating against a lift of about 29 feet. The spiral blade of the pump screw will be about 12 feet 6 inches in diameter, and the hollow shaft will be about 6 feet 6 inches in diameter. The capacity of this station (450 m.g.d. firm, with 90 m.g.d. additional standby), together with the revised capacity of the existing station (400 m.g.d. firm, with 3 pumps and 125 m.g.d. standby) will be sufficient to handle all peak flows to the year 2040. During all dry weather flows, only the new station will be used. Flow from each screw pump will discharge to a combined channel located under the motor and control room, and then proceed via a primary clarifier bypass conduit and influent conduit to the biological oxygenation tanks. After Phase II construction, this flow will go to the primary clarifiers and then to the oxygenation tanks influent condui

The existing main pumping station will be modified by removal of the two existing engines and replacing with one 2500 hp motor with multi speed controller and one 1000 hp constant speed electric motor. All switchgear will be replaced and all four pumps refurbished. In addition, old screen and grit facilities will be removed and the space utilized for office space, parking & storage. Since the existing station will be used for storm flows only, arrangements have been provided to drain the suction sewer and force main after every use.

Also in this item is the return and waste sludge pumping station. Return sludge pumping equipment will consist of three screw pumps (including one stand-by) each having a capacity of 75 m.g.d., operating against a lift of 17 feet. The spiral blade diameter will be 10 feet. Each pump will discharge to a common return sludge effluent chamber, and thence to two conduits for conveyance to the main conduit to the biological oxygen units.

Waste sludge pumping equipment will consist of four variable speed torque flow-type pumps (including one stand-by), each having a capacity of 2.5 m.g.d. The pumps and flow of sludge will be controlled by a computer program. Waste activated sludge will be metered and then conveyed via a force main to the sludge thickeners. The purpose of the return and waste sludge pumping station is to return the biologically active culture in the settled sludge from the final clarifiers to the oxygenation tanks, where it acts (feeds) upon the incoming sewage and metabolizes it. Since more sludge is generated than needed for return to the oxygenation facilities, the excess (waste) sludge is then pumped to the sludge handling facilities. Since additional grease is expected to be separated from the sewage, a two furnace scum and grease incinerator is also to be constructed on this phase, which until the Phase II construction, will burn the material collected in the final clarifiers, and subsequently, that collected in the primary clarifers. Various additional flow conduits and chambers for conveyance and control of flow will be constructed in this step, as will several hundred feet of tunnel for utilities and access among several structures.

(2) Biological Oxygenation Tanks

These tanks will consist of two sets of six covered tanks per set, with a gallery between sets. Each tank consists of 4-6 reactor stages in series, each 58 ft. square or 58 ft. by 38 ft., all about 30 ft. deep. The gallery will contain a two compartment influent conduit, oxygen feed gas headers, pumps, and necessary piping, meters, valves, instruments, switchgear, and controls.

The sewage from the pumping stations, together with the return sludge from the return and waste sludge pumping station, will enter the first stage reactor of each tank through individual lines containing meters and control valves. The mixed flow will pass successively through the stages, passing through openings in the interstage walls. Flow equalization to each tank will be computer controlled. The final flow will then go over an effluent weir in the last stage to the mixed liquor channel. In each stage, a turbine mixer would drive a mixing blade impeller and sparger conveying to each stage the appropriate amount of gaseous oxygen.

Atop the tanks will be a large compressor building containing 16 interstage compressors - 2 per stage for each set of six tanks, 2 purge compressors, a control room, electric and transformer rooms, and auxilliary equipment and piping. These interstage compressors act to remove the oxygen from the gas space above each stage and introduce it under pressure to the spargers in the next stage.

This system works in theory as the standard activaged sludge system, except that instead of air, oxygen, under a low pressure, is used, so that the system work at a high solids level with a high oxygen absorption efficiency, due to the oxygen atmosphere, thus increasing stability and decreasing required detention time over the normal activated sludge system. The multiple biological stages are used for the most efficient use of the oxygen, since in each stage the exhaust from the previous stage is used until in

the last stage the gas contains only approximately 50% oxygen. However, because of overall gas utilization by the culture, the final gas volume, which is vented from the last stage, would have less than 20% of the initial gas volume; thus, oxygen utilization rate would actually be 90% or more for all of the stages.

(3) Oxygen Production and Storage Facilities

Since a large amount of oxygen is needed for these facilities, (and for the sludge supernatant treatment plant), the PVSC will build an oxygen production facility and a liquid oxygen storage tank to produce and store the required oxygen.

A cryogenic type facility would produce this oxygen. The plant would have a capacity of 1,000 tons per day of gaseous oxygen,or a mix of 66 tons of liquid oxygen and 700 tons/day of gaseous oxygen, and would contain two production trains of 500 tons per day each. Since average usage would be about 640 tons per day, one production train would normally be in operation, with the required 140 tons per day remainder coming from the storage tank. Each production train requires one 8,000 HP compressor and a large cooling tower, plus cold boxes, heat exchangers, columns and other auxilliary equipment. The second production train would be operated for refilling the storage tank and during periods of high oxygen demand. The required oxygen storage tank will be an insulated tank, approximately 50 feet in diameter by 70 feet high, with a capacity of 2,000 tons. A reinforced concrete slab would be provided to support the tank, and other outdoor equipment.

The storage tank will supply the liquid oxygen to a segmentized vaporizer, which will convert the liquid to gaseous oxygen for use in the treatment plant.

(4) Final Clarifiers and Adjacent Tunnels

The Final Clarifiers will consist of twelve rectangular tanks, each measuring 363 feet by 120 feet, with each containing three 120-foot diameter rotating suction-type sludge-collecting mechanisms in series. The center mechanism will also contain a skimming device. Six tanks would be constructed on each side of a Gallery.

The Gallery would contain the necessary scum and other pumps, pipes, valves, meters, instruments, switchgear, controls, a two compartment influent mixed liquor conduit, two sludge withdrawal conduits, and all other required appurtenances.

Mixed liquor from the Oxygenation Tanks Gallery would be distributed to each Final Clarifier, from the influent conduit, by means of an individual line which will be equipped with a flow meter and a control valve. Flow will then be directed t a distribution channel running the full width of the tank, with sufficient port openings to provide proper flow distribution. Flow equalization to each tank will be computer controlled.

The clarified effluent from the tank will flow over weirs at the end of the tank into collecting troughs, which in turn will discharge into the effluent channels. The channels will convey the flow to the effluent pumping station.

The sludge from the final clarifiers will be conveyed in sludge withdrawal conduits, located in the gallery, to the wet well of the return and waste sludge pumping station. The sludge withdrawal line from each tank will be equipped with a meter and control valve, and flow equalization and optimum flow rate will be computer controlled.

(5) Effluent and Process Water Pumping Station, Chlorination Building, Conduits and Chambers, Chlorine Contact Tank and Head House Modifications

Since our new facilities will have a greater head loss than the primary plant, and since a greater flow is required to New York Harbor before the remainder goes to Newark Bay, an effluent pumping station is required if treatment units almost 45 feet above ground are to be avoided. This station would contain a wet well and four automatically controlled variable flow turbine type effluent pumps, each nominally rated at 250 m.g.d. A post-chlorination diffuser will be placed at the inlet of the station wet well. The discharge from the station will flow through a two compartment force main under Doremus Avenue, to an effluent control chamber located on the existing conduits just east of sedimentation tank unit #3. All flows up to 450 m.g.d. will flow directly through the control chamber to the revamped head house and hence to New York Harbor. All flows in excess of 450 m.g.d. will overflow weirs in this chamber, which directs the excess flows to a chlorine contact chamber for detention, and then via a conduit to the Newark Bay outlet side of the Head House, and thence to Newark Bay. This chamber can also be used to divert all flow to Newark Bay in the event the New York Harbor outlet system must be repaired. All gates will be removed from the Head House.

A large quantity of non-potable quality water at a fairly high pressure is necessary for various plant treatment processes. Therefore, three 10.3 mgd variable speed non-potable water pumps, and two large diameter strainers will be provided. In addition, four 7.3 mgd pumps will be provided to furnish dilution water to the thickeners to aid in sludge thickening and foam control at the supernatant treatment plant. These units are located in a dry well within the effluent pumping station.

To provide chlorine solution for the non-potable water, a small ton-cylinder type chlorination facility will be provided. The main plant effluent will be chlorinated by means of the recently completed chlorination facility.

A tunnel under Doremus Avenue, and various other tunnels connecting plant units, are included in this section.

(6) Operation and Maintenance Building

The existing Maintenance shops, which are inadequate and scattered in many locations, are to be centralized in this new building. The building will house a pipe shop, a carpenter shop, a machine shop, an iron shop, an electric shop, an electronic shop, a paint shop, a sampling and monitoring room, a computer room with centralized plant control board and programming room, offices for supervising operational and maintenance personnel, first aid room, lunch room, shower and wash room, clerical and file room, locker rooms, and garages and repair bays for PVSC maintenance vehicles. The building will be approximately 196 X 110 feet, and will be two stories high, with a basement which will contain boilers for heating and dehumidifying services for not only this building, but for adjacent structures.

(7) Electric Sub-Station

Since significantly more power will be needed for the new facilities, a 138 KV sub-station will be required to receive the power required from Public Service, and convert it to useable voltages. In addition, several smaller sub-stations around the site will be required.

(8) Site Work, Paving and Fence

This item is self-explanatory.

(9) River Monitoring, Customer Metering and Regulator Modifications

The present system of regulations of storm flow into the PVSC is manual in the lower part of the sewer and has automatic overflows in the Paterson area. The result is that when a storm occurs, it is necessary to call personnel out to manua divert enough of the storm water into the river, so as not to exceed the capacity the pumping station. The new system will have each of the by-pass points equipped with a motor operated gate, which will control the flow to the PVSC trunk sewer. It will also be possible to remotely control all regulators from the pumping station. There will also be level sensors indicating water level in the trunk sewer, so that the automatic operation may be supplemented by remotely operating the larger regulating stations to minimize the discharge into the river.

There will be approximately 7 locations along the Passaic River where 8 automatic monitoring stations will be constructed. These stations will monitor various parameters, such as, dissolved chlorides, ortho-phosphates, oxygen reduction potential, dissolved oxygen, conductivity, pH, temperature, river stage height, total organic carbon, and turbidity. In addition, there will be located in each station an automatic sampler that will sample the river each hour and discharge the contents into separate containers located in a refrigerator. On the 25th hour the first container will be automatically emptied and a fresh sample put in. Thus, at any time the station is visited, samples can be had of the previous 24 hours in hourly increments. Thus, if something occurs, we will have a cross-section of the river for the past 24 hours in order to run analyses, such as heavy metals, C.O.D., or B.O.D. The automatic information will be transmitted to the central computer, where an alert system will be utilized to inform an operator that something abnormal is occurring in the river, so that an inspector can be dispatched to the area.

The present meters will be modified, additional meters will be installed, and signals will be transmitted to the computers for constant monitoring. Meters and sampling devices will be installed on the large industrial waste dischargers to check that proper pretreatment is provided where necessary, and to supply the information which will be needed for the industrial cost recovery system.

The individual items included in Phase I, Part B, are described in more detail, as follows:

(10) Sludge Thickener Complex

New sludge thickening tanks will be installed to concentrate the sludge before further treatment. This will require twelve 100-foot diameter tanks, together with an access and control building,housing, piping, control, and auxiliary equipment.

(11) Sludge Treatment Facilities

The Passaic Valley Sewerage Commissioners will treat the sludge prior to proper disposal.

After much investigation, the Commissioners' consultants have recommended a wet air oxydation sludge treatment system. This system will heat the sludge to approx.375^{o}F. at a pressure of approximately 600 psi. At this temperature and pres-

sure, the organic content will be reduced by 50 per cent and the sludge characteristics changed to permit further concentration. This will reduce the total volume of sludge to be disposed of and will result in a sterilized material containing no pathogenic organisms, and will reduce the impact of the treated sludge upon the ocean environment if ocean disposal is permitted to continue. This process will also constitute a logical initial treatment step if disposal on land or by incineration is adopted in the future.

(12) Sludge Supernatant Treatment Plant

The liquid supernatant from the thermal sludge conditioning process contains a high concentration of organic material and is to be separately treated by a pure oxygen activated sludge supernatant treatment plant before being returned to the Main Biological Plant to be mixed with the incoming sewage. This treatment plant would have a capacity of approximately 3.5 M.G.D.

(13) Treated Sludge Settling and Sludge Storage Tanks With Sludge Pumping Station

The sludge from the thermal conditioning process must be settled and stored before final disposal. It is planned to provide approximately six settling or decant tanks for sludge thickening and to construct additional sludge storage tanks which will provide capacity to store fourteen days sludge production at average conditions. The existing sludge storage tanks and sludge thickening tanks will be modified and utilized for a portion of the total sludge settling and storage capacity.

The existing sludge pumping station will be modified as required for pumping the stored sludge to final disposal. An additional sludge pumping station will be provided to pump sludge from the new sludge storage tanks.

(14) Landscaping, Paving, Fence, Land Development, Etc.

This item is self-explanatory.

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Generally speaking, Phase I will be the first and most important phase in converting the Commissioners' existing plant into a high grade secondary sewage treatment plant with the ability to remove approximately 93% of the BOD and suspended solids, so that the PVSC effluent conforms with required State and Federal effluent standards. The new plant will be capable of treating an average of 300 million gallons a day, with peak flows of 720 mgd, which will bring the plant into compliance through the year 2000 for treatment capacity, and to the year 2040 for hydraulic capacity. The first phase construction will surround the existing primary treatment plant and be accomplished while the present plant is fully operational. After this construction (early 1980), these units will take over the treatment of the flow, and the existing sedimentation basins (primary treatment) will be destroyed and new primary clarifiers will be built in the second phase.

The new primary clarifiers will consist of twelve rectangular tanks, each 90 feet X 280 feet long, with bridge type sludge collectors and skimmers, arranged in two sets of six, with a gallery between the sets. The gallery will contain a two-compartment influent conduit, piping, valves, primary sludge, scum, and other pumps, instruments, control centers, and other auxiliary

items. The influent to each clarifier will contain a meter and control valve and will be divided into six branches, so as to evenly distribute the flow. Flow equalization to each tank will be computer controlled. The effluent will leave the clarifiers over weirs into effluent troughs, which in turn will discharge into effluent channels. These channels will convey the flow to a control chamber, and hence via a two compartment conduit to the oxygenation tank gallery for distributior to the biological units. The primary sludge will be removed from each tank by means of six automatically controlled valves and conveyed to the wet well of the primary sludge pumps, and from the pumps to the thickener complex. Scum will be automatically pumped to the grease and scum incinerator.

In addition, under Phase II, a vehicular bridge over Doremus Avenue will be built. Any additional new sludge facilities, such as dewatering or incineration, cannot be ascertained at this time, since we will require guidance from State and Federal officials. This must await the results of studies now being made, but which will be completed prior to Phase II construction. Whatever is decided upon, whether it be incineration, ocean disposal, etc., will be included in the Phase II construction program.

Phase II may also include the additional parallel trunk sewer in the northern area of the district if it is decided it is needed at that time.

* * * * * * *

The Commissioners have received bids on Contracts 480, 481, 487, 496A, and 497, and will be receiving bids on Contracts 482, 483, 484, 485, 486A, 491, 492, 493, and 496B by the end of 1977.

* * * * * * *

Inflow/Infiltration - Phase I of the Inflow/Infiltration Report was submitted to the New Jersey Department of Environmental Protection and the U. S. Environmental Protection Agency and has been accepted by them. The Commissioners were authorized to proceed with Phase II. Phase II is being broken into two sections, Phase 2A and Phase 2B. Phase 2A consists of a physical survey and a measurement within the system to determine what areas, if any, need preparatory cleaning and internal inspection, which will be done under Phase 2B. It has been estimated that the entire work of Phase 2 will be approximately $8 million dollars.

Bond Resolution - The Commissioners have passed a Bond Resolution for the sale of $30 million dollars of bonds to finance their share of the cost of construction. The Commissioners will receive bids on this sale on February 23, 1977.

State Grant - Besides the Federal Share of 75% of eligible costs, in November of 1976 the voters of New Jersey passed a referendum authorizing the State of New Jersey to sell bonds to aid municipalities in construction of water pollution control projects. PVSC has been informed by the NJDEP and Governor Byrne, that the Commissioners' project is eligible for a 8% grant to aid them in their construction. Therefore, the Commissioners anticipate approximately $34 million dollars in State aid.

User Charges, Industrial Cost, and Pretreatment - PVSC have passed rules and regulations concerning these items and have requested municipalities to pass the required ordinances (see Special Report # 4 , page 52 , for details). The Commissioners will take whatever legal action is necessary to require the municipalities to pass the mandated ordinances, if they do not do so upon request.

SPECIAL REPORT #2
GENERAL OPERATIONAL REPORT

During the year 1976, the Passaic Valley Sewerage Commissioners pumped and treated 91,684.60 M.G. for an average daily flow of 250.50 M.G.D. This made the cost $74.751 per M.G. for the Newark South Side sewerage and $99.668 per M.G. for all other sewerage. The $99.668 per M.G. is broken down as follows:

PENSION PLAN		3.827
ADMINISTRATION		
Salaries	$5.999 per M.G.)	13.426
Expenses	$7.427 per M.G.)	
LINE MAINTENANCE		
Salaries	$6.135 per M.G.)	7.951
Expenses	$1.816 per M.G.)	
RIVER INSPECTION AND SANITATION CONTROL		
Salaries	$3.915 per M.G.)	4.211
Expenses	$0.296 per M.G.)	
PUMPING OPERATION - MAIN STATION		
Salaries	$3.914 per M.G.)	11.687
Expenses	$7.773 per M.G.)	
TREATMENT OPERATION - MAIN STATION		
Salaries	$8.481 per M.G.)	10.174
Expenses	$1.693 per M.G.)	
CHLORINE		6.671
SLUDGE REMOVAL		6.462
MAINTENANCE OPERATION - MAIN STATION		
Salaries	$8.632 per M.G.)	9.433
Expenses	$0.801 per M.G.)	
YANTACAW PUMPING STATION		
Salaries	$1.616 per M.G.)	1.815
Expenses	$0.199 per M.G.)	
WALLINGTON PUMPING STATION		
Salaries	$1.693 per M.G.)	2.424
Expenses	$0.731 per M.G.)	
RESERVE		5.607
BOND DEBT (1972 BONDS)		18.391
	TOTAL	102.079
CREDITS (Insurance claims, tax refunds, investments, etc.)		2.411
	NET	$99.668

At the Newark Bay Pumping Station and Treatment Plant, under the direction of Superintendent of Plants T. Perry, Senior Superintendents P. Walker and J. Keelan, and Superintendents A. Malba, M. Andolino, D. Purdy, J. Walton, C. Daly, E. Davis, and B. Bryson, 14,860,800 kw-hrs. of electric power were used at a cost of approximately 2.97¢ per kw-hr. In addition, 578,499 gallons of #2 diesel fuel oil were used at an average cost of 32.41¢ per gallon.

It is estimated that 47,697.02 million gallons were pumped with electric power, and 43,987.58 million gallons with diesel power. Flow peaks were as follows:

Peak instantaneous flow rate: 466 M.G.D. at 9:00 P.M. on 3/16/76
Peak rate of flow for one hour: 455 M.G.D. from 9 to 10 P.M. on 3/16/76
Peak flow for one day: 354.86 M.G.D. - 9 A.M. 3/16/76 to 9 A.M. 3/17/76
Peak flow for one week: 302.88 M.G.D. - 9 A.M. 1/26/76 to 9 A.M. 2/2/76

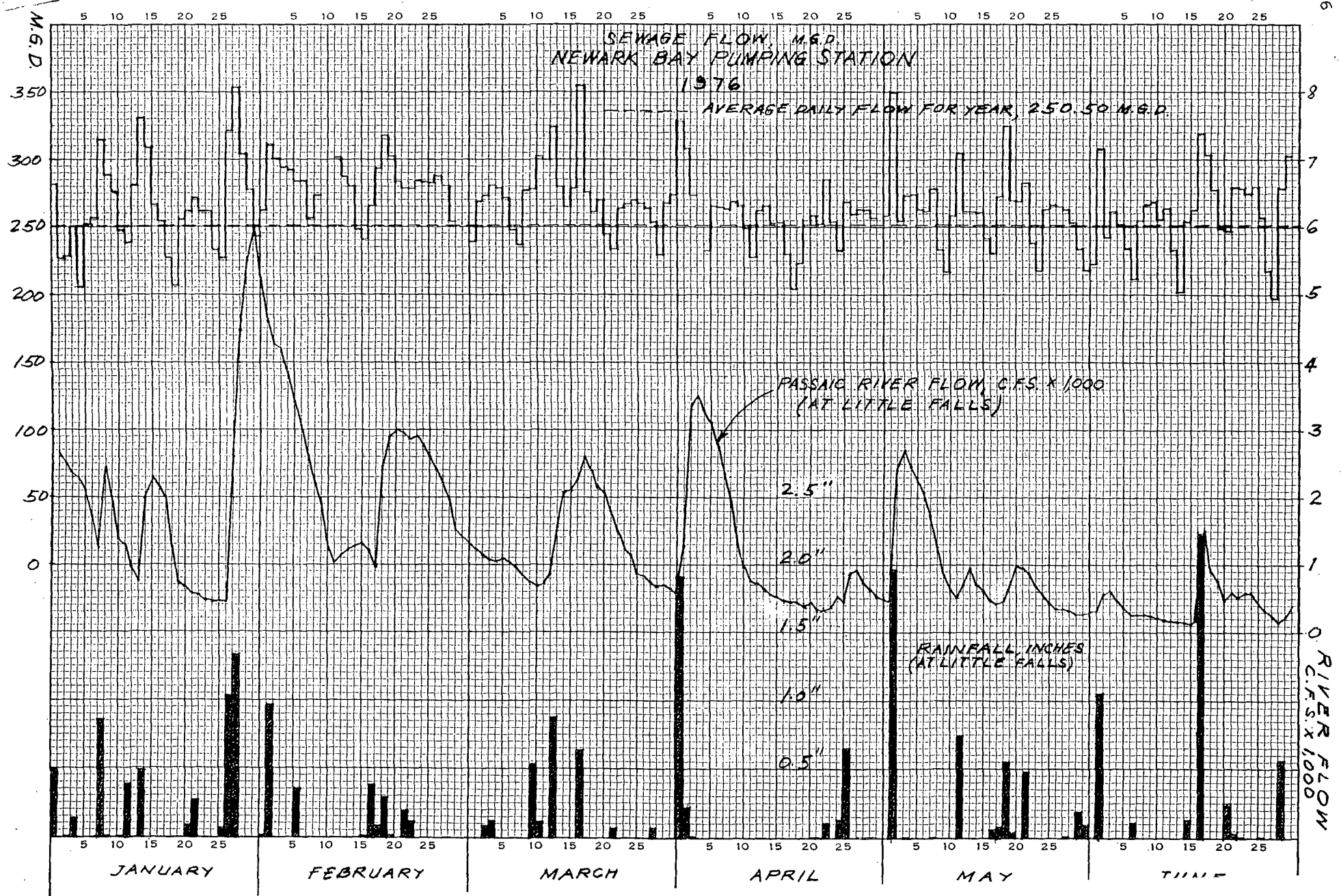
The following pages are charts showing the flow received at the Newark Bay Pumping Station, together with the Passaic River flow (at Little Falls) and rainfall. The average daily flow received at the Newark Bay Pumping Station, tabulated by months, is as follows:

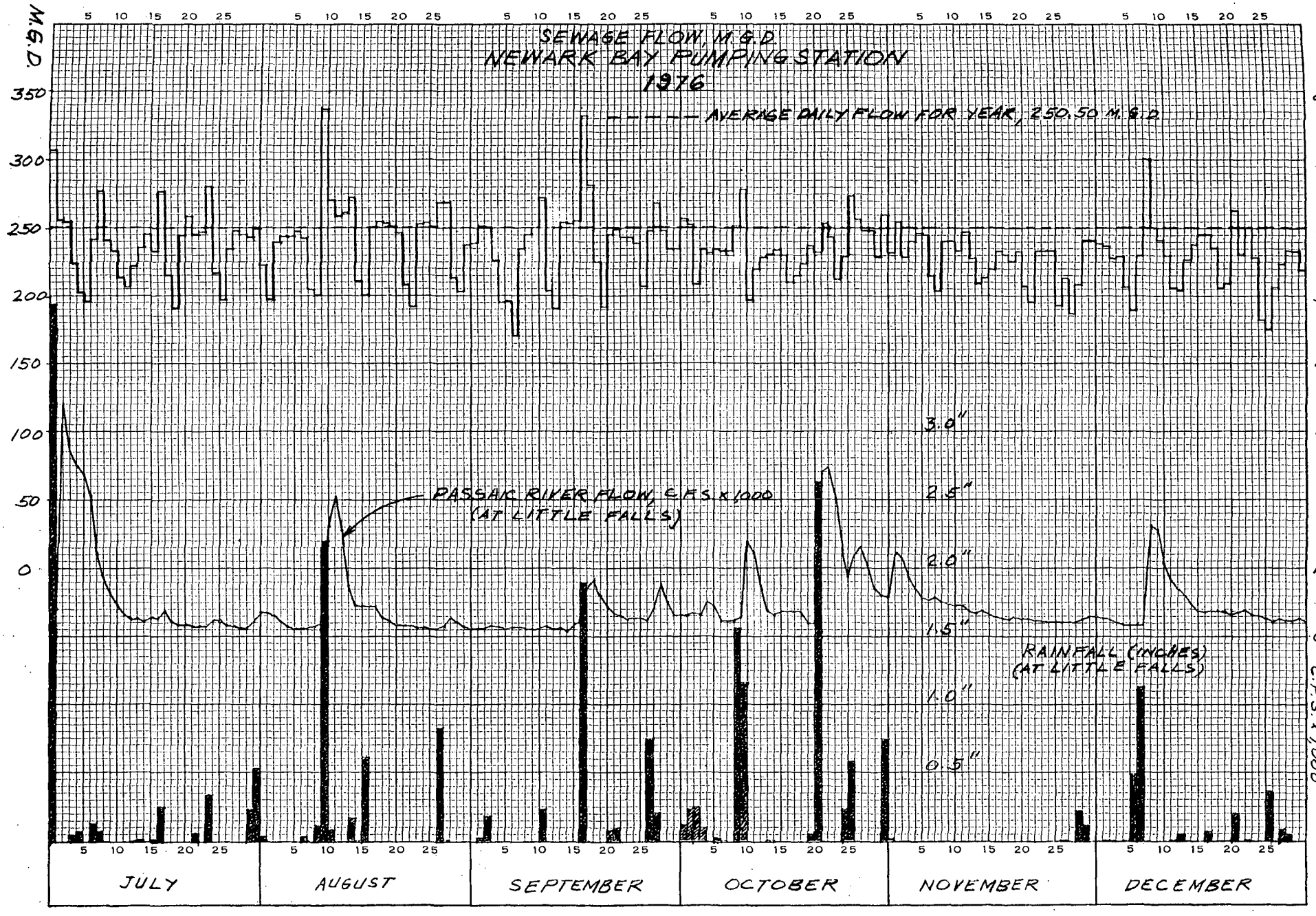
January	266.73 M.G.D.	July	238.20 M.G.D.
February	281.00 M.G.D.	August	240.51 M.G.D.
March	270.65 M.G.D.	September	238.20 M.G.D.
April	258.38 M.G.D.	October	239.13 M.G.D.
May	261.73 M.G.D.	November	225.63 M.G.D.
June	258.60 M.G.D.	December	227.25 M.G.D.

The Commissioners barged 673,457.45 wet cubic yards of sludge to sea at an approximate average solids content of 7.5%. 2,881 cubic yards of screening and 9,578 cubic yards of grit were removed at the Newark Bay Plant, and an additional 2,428 cubic yards of screenings and grit were removed from line screens and chambers during the year.

On January 12, 1976, at 9:40 A.M., the impeller came off the shaft of our #1 sludge pump. This was repaired by PVSC personnel and was returned to service on January 29, 1976.

On February 11, 1976, the #3 electric motor driven pump was taken out of service and dismantling was started in order to rebuild and repair the impeller, wear rings, and replace the shaft packing sleeve. The impeller assembly was shipped to Worthington on March 4, 1976. The pump was rebuilt and returned to service on July 21, 1976.


SEWAGE FLOW, M.G.D.
NEWARK BAY PUMPING STATION
1976
AVERAGE DAILY FLOW FOR YEAR, 250.50 M.G.D.
M.G.D.
350
300
250
200
150
100
50
0
PASSAIC RIVER FLOW, C.F.S. x 1,000
(AT LITTLE FALLS)
2.5"
2.0"
1.5"
1.0"
0.5"
RAINFALL, INCHES
(AT LITTLE FALLS)
RIVER FLOW
C.F.S. x 1,000
8
7
6
5
4
3
2
1
0
5 10 15 20 25
JANUARY
FEBRUARY
MARCH
APRIL
MAY
TIME


SEWAGE FLOW, M.G.D.
NEWARK BAY PUMPING STATION
1976
AVERAGE DAILY FLOW FOR YEAR, 250.50 M.G.D.
M.G.D.
350
300
250
200
150
100
50
0
PASSAIC RIVER FLOW, C.F.S. x 1000
(AT LITTLE FALLS)
3.0"
2.5"
2.0"
1.5"
1.0"
0.5"
RAINFALL (INCHES)
(AT LITTLE FALLS)
RIVER FLOW
C.F.S. x 1,000
8
7
6
5
4
3
2
1
0
5 10 15 20 25
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER

On March 18, 1976 at 6 a.m. an employee of the Keller Engineering and Oil Company of East Rutherford discovered a rupture in a six-inch oil line which fed No. 2 fuel oil from a 250,000 gallon holding tank to a truck loading platform. By the time the tank was shut off approximately 30,000 gallons of the oil had escaped, running through a catch basin and oil separator into the PVSC branch sewer on Madison Street. None of the oil went to the Passaic River but went through to the PVSC treatment plant. Mr. Robert Keller called PVSC the first thing Thursday morning, March 18, and spoke to Mr. S. A. Lubetkin explaining what happened. Fortunately, the oil had not reached the plant and by shutting off the air in the forebay of the Head End Facilities, PVSC was able to trap almost all the oil in the baffled Grit Facilities.

Mr. Keller contacted Coastal Services, Inc., and made arrangements for them to come to the PVSC site to remove the oil. Mr. E. Faille of the NJDEP and Mr. G. Zachos of the USEPA came to the PVSC plant and supervised the removal of the oil by Coastal Services. They worked Thursday, Friday and Saturday and did final clean-up on Monday, March 22, 1976. The PVSC wishes to compliment both Mr. Faille and Mr. Zachos for the efficient and conscientious manner in which they conducted the clean-up.

On April 17, at 12:45 P.M., one of our electric feeder lines, X-492 from Public Service, was out due to a cable failure. The line was put back in service at 4:35 A.M. on April 19, 1976.

The pilot plant to test the corrosive properties of the Zimpro sludge treatment system, which had been installed on August 5, 1975, had completed its work and was removed from the Commissioners' property on February 18, 1976.

PVSC chlorinated their effluent (as required) from May 15, 1976 through September 15, 1976. This was the second full season since the installation of the chlorination facilities, where an adequate supply of chlorine was available. During 1976 the Commissioners used 4,230 tons of chlorine, at an average cost of $140.55 per ton, for a net cost of chlorine usage of $594,546.30.

At the Commissioners' Wallington Station, under the direction of J. Manney, 3,938.41 million gallons were pumped, or an average of 10.76 M.G.D. with a consumption of 604,800 kw-hrs. of electricity at a cost of 4.28¢ per kw-hr. This station pumps sewage from Wallington, East Rutherford, and parts of Garfield, Saddle Brook, Passaic, and Rutherford.

The Yantacaw Station, under the direction of P. Melillo, pumped 1,237.55 million gallons, or an average flow of 3.38 M.G.D., with a consumption of 207,920 kw-hrs. of electricity at a cost of 5.40¢ per kw-hr. The Yantacaw Pumping Station pumps sewage from Lyndhurst and part of Rutherford.

As indicated in previous reports, a crack had developed in the trunk sewer leading to the Wallington Pumping Station. On February 4, 1976, bids were received to make the repairs and on February 11, a contract was awarded for the "Reconstruction of the 54" Branch Interceptor" to C. Salvatore and Sons, Inc. in the amount of $263,222.00.

This reconstruction work was very critical, in that it required deep excavation adjacent to the river, and the contractor was expected to drive sheet piling deep enough and tight enough to prevent the river water from coming in during the construction. However, the Commissioners' existing sewer (which had a section crossing the river) was failing faster than anticipated, and on June 11, 1976 a "blow" occurred in the south end of the cofferdam, which resulted in an in-rush of water into the cofferdam. After analyzing the situation, it was decided that the by-pass sewer would be constructed in the wet,using divers, so that the sewer to be rebuilt could then be severed and sealed, and the sheeting driven through it to seal the cofferdam in order to reconstruct the new section.

The contractor was ordered to proceed under this method and work was completed, and the final inspection was made on December 15, 1976.

The extra work due to the blow and the emergency situation was in the amount of $82,200.

The Commissioners' Department of Sanitation Control, under Senior Superintendent A. Goldberg, conducts river and stream surveys, and inspection and monitoring of discharges to waters under the Commissioners' jurisdiction. The inspection team is headed by Superintendent F. D'Ascensio, and aided by Supervisor F. Cupo, and his assistant, L. Cucci-nello. All samples are analyzed in the Department laboratories under the direction of chemists E. Rys, A. Martinelli, and staff.

Over 3,000 samples requiring 28,000 tests were submitted by the inspection and survey teams. In addition, over 5,800 samples of PVSC operations were checked with 18,000 tests, and many samples and tests were taken for cooperative agency studies with other governmental units.

In addition to the standard tests, such as C.O.D., T.O.C., B.O.D., pH, total and suspended solids (volatile and mineral), fecal and total coliform, chlorine residual, dissolved oxygen, odor, other tests, such as chlorine demand, chromate chromium, soluble ether extracts, oil, special bacteria tests, iron, acidity and alkalinity, cyanide, all nitrogens, explosibility and flammability, fractional distillations, nickel, zinc, copper, cadmium, manganese, lead, fats and oils were performed. Microscopic and physical examinations were conducted where special situations required the tests.

Violations from 74 separate violators were eliminated during 1976 due to the work of this department (See Index List, Pages ii and iii). In addition, the members of the Sanitation Control Department are constantly surveying industries in the area and keeping track of the outlets into the Passaic River and its tributaries, in order to keep its records up to date.

Also, under Senior Superintendent A. Goldberg, Superintendent F. D'Ascensio and J. Kinder continued their industrial waste studies.

PVSC calculated the total quantity of the various toxic pollutants received which are attributable to the Major and Potential Major Contributing Industries and submitted this to the USEPA in its third semi-annual report on March 31, 1976.

In April, personnel in the Engineering and Industrial Departments conducted an extensive sampling program at key points in the PVSC sewer in conjunction with a toxic wastes survey. 552 individual analyses were made by the PVSC laboratory. This survey provided the data for the first phase of the Heavy Metals Source Determination Study, which is required by PVSC's Sludge Dumping Permit. The proposed plan of study was prepared in September and was being reviewed as of December 31. The purpose of this study is to locate and quantify those companies that discharge the various heavy metals.

In May, the Industrial Department began the complicated task of categorizing the Major and Potential Major Contributing Industries. This was necessary in order to calculate pretreatment limits for each industry when the Federal Guidelines are promulgated. By December 31, 44 companies known to conduct electroplating operations were visited and categorized.

In June, the Industrial Department completed the comprehensive review of all counties utilizing the reverse directories. Based on this review, it was determined that about 4,700 industries and establishments would have to be contacted by the end of 1976.

PVSC's Rules and Regulations concerning sewer connections permits went into effect on August 1. The purpose of these Rules and Regulations is to provide for effective pretreatment and monitoring of industrial discharges to the PVSC sewer.

In May of 1976, the Commissioners formulated and had approved by the USEPA a Model Ordinance to be submitted and passed by each user municipality (see Special Report #4 page 52). The Model Ordinance was submitted to the 30 user municipalities, with a request that they pass the Ordinance and make it part of the laws of the municipality. As of the end of 1976, fifteen of the municipalities had replied to the Commissioners, informing them that this was being done. The Commissioners will act to require the remaining municipalities to enact this Ordinance during 1977.

In September, PVSC submitted its fourth semi-annual report to the USEPA. At the end of 1975, the Industrial Department had 12 files on Major and Potential Major Contributing Industries that were incomplete, 150 surveys outstanding, and approximately 1,500 (reduced in June to 1,200) surveys to be made in 1976. The Department met its 1976 goal in that all industries and establishments were contacted and only 47 surveys were outstanding.

The following represents the status of the Industrial Waste Survey as of December 31, 1976:

(A)	Major Contributing Industries (50,000 gallons/day or more)	176
(B)	Potential Major Contributing Industries (potential toxic waste under 50,000 gallons/day)	50
(C)	Potential Major Contributing Industries (heavy metals under 50,000 gals/day)	84
(D)	Potential Major Contributing Industries (incompatible waste under 50,000 gallons/day)	2
(E)	Non-Major Contributing Industries (with industrial waste)	2,153
(F)	Industries with Industrial Wastes Deleted From List (out of business, moved out of district, etc.)	
	1. Prior to 12/31/75 — 170	
	2. 1/1/76 to 12/31/76 — 51	
	Total — 221*	
	(* Not in Grand Total)	
(G)	Establishments With No Industrial Waste	2,147
	GRAND TOTAL	4,612
(H)	Surveys Outstanding	47
	Estimated Total Number of Industries (Rounded Off)	4,700

In addition to plant operation, the PVSC must maintain its trunk sewer, and it was found necessary to clean a large portion of the Commissioners' sewer in Paterson. In addition to cleaning, new manholes had to be rebuilt and additional manholes constructed. On March 10, 1976, the Commissioners received bids for this work and on April 8, 1976, PVSC awarded a contract (#459) for "Cleaning of Main PVSC Interceptor, Manhole Enlargement, and Additional Manholes, Paterson, New Jersey" to the Cruz Construction Company, Inc., in the sum of $927,500. As of the end of 1976, the work was in progress.

The Meter Department, under the direction of Superintendent R. Ready, takes readings from approximately 72 different flow and water level meters, some daily, most weekly. The old meters are constantly maintained, and slowly are being modernized with a view of computerizing the flow meters, correlating them to water level meters with an alarm system when the two types do not check, showing a malfunction or a problem in the trunk line.

The Line Maintenance Crew, under the direction of Senior Superintendent F. Belli, Superintendent G. Ferrara, and Assistant Superintendent J. Kearny, kept constant check of the line, cleaning screens, grit chambers, weir chambers, repairing manholes, and cleaning sewers.

I am ably aided in the thousand and one engineering details in the plant, on the line, and in the office, by Assistant Chief Engineer E. Moller, and Engineers J. Lawrence and F. Grigg.

At this point I would like to commend the many other Passaic Valley supervisory personnel for the long extra hours they put in during the year attending to their duties. I cannot say for work beyond the call of duty, because being a Passaic Valley supervisor requires many extra hours of work. Yet, remembering that these men do not get paid additional or for overtime, it does take some dedication to do what they did.

Commissioner Michael Giuliano passed away on April 21, 1976, after ably serving for many years as a Commissioner.

In May, 1976, Commissioner Perrapato was re-elected Chairman, and Commissioner Thomas Cifelli was elected Vice-Chairman. They were aided in their administration by Commissioners Davenport, Giuliano, Keegan, and Lagos. I wish to thank the Commissioners for their support and their able administration, which is helping PVSC in its progressive program.

SPECIAL REPORT #3

THE PASSAIC RIVER - 1976

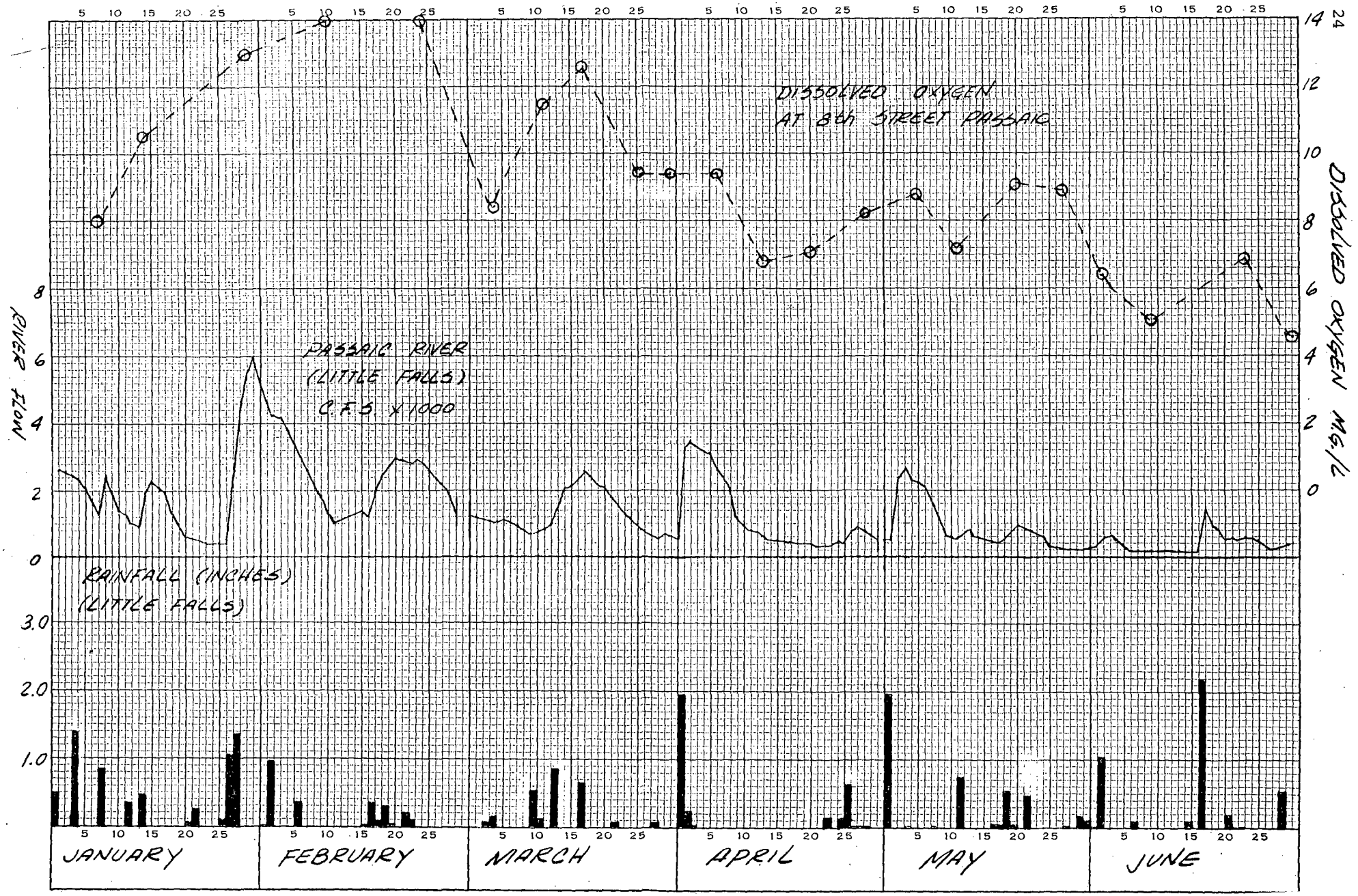
During 1976 the flow in the Passaic River averaged 927 cubic feet per second, as reported by the U. S. Geological Survey Gauging Station, Little Falls, as compared to 1,738 c.f.s. for 1975. The breakdown by months, is as follows:

Month	Rainfall 1975	River Flow 1975 (c.f.s.)	Rainfall 1976	River Flow 1976 (c.f.s.)
January	5.43	1,967	5.15	1,998
February	3.25	1,767	2.40	2,445
March	3.62	2,490	2.50	1,264
April	2.90	1,416	3.02	1,161
May	4.96	1,361	4.19	922
June	5.92	1,429	4.32	403
July	12.38	2.489	5.70	685
August	5.29	734	4.14	382
September	11.41	1,830	3.49	273
October	4.32	2,501	7.71	730
November	4.27	1,803	0.36	423
December	3.21	1,070	2.42	438
	Average River Flow 1,738 c.f.s.		Average River Flow 927 c.f.s.	
	Total Rainfall 66.96 inches		Total Rainfall 45.42 inches	

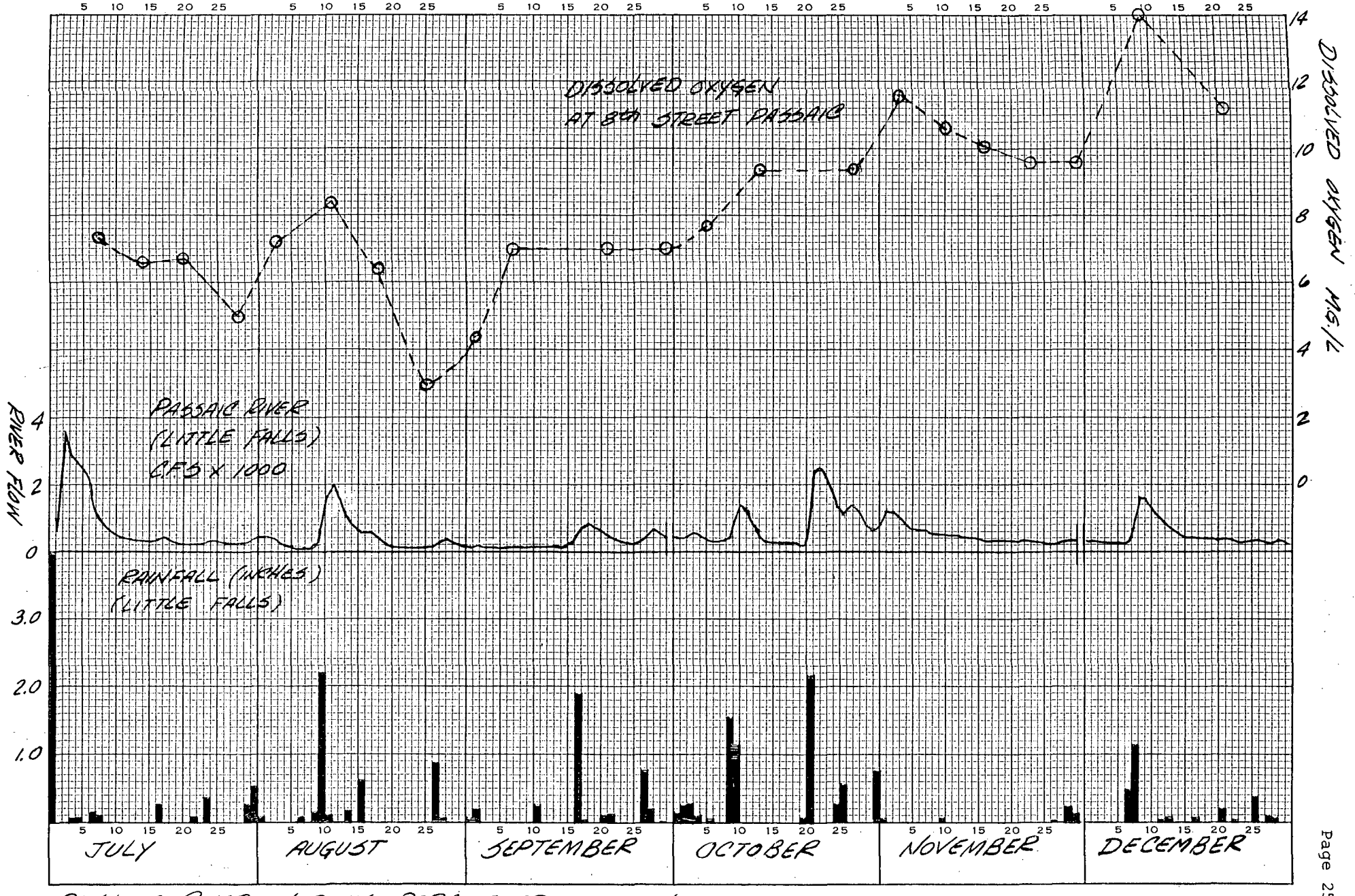
The dissolved oxygen in the river was excellent and the river was in good condition except for the tremendous amount of debris coming down from upstream and floating back from Newark Bay on incoming tides.

The graphs on the following pages show the rainfall and river flow (as measured at Little Falls, N.J.), together with the dissolved oxygen measured two feet below the surface at Eighth Street, Passaic, (about mid-point in the PVSC jurisdiction).

It can be noted that the dissolved oxygen in the river at Eighth Street, Passaic, was generally satisfactory.



PASSAIC RIVER - VARIOUS PARAMETERS FOR THE YEAR



PASSAIC RIVER VARIOUS PARAMETERS FOR THE YEAR OF 1976

We were not infallible, and there were times alleged pollutions occurred where we could not locate the source before the evidence dissipated and the stream was clear again. The following are examples:

* * * *

On Wednesday, March 24, 1976, PVSC received a call at 3:50 p.m. from Mr. Michael Meddis, Health Officer of Nutley informing us that there was a green dye in Nichols Pond at Kingsland Road, Nutley. Supt. Cuccinello with Chief River Inspector F. Cupo investigated and traced the color to Allwood Brook up to the south side of Highway S-3. The brook appeared clear north of S-3. Going south again, the open storm ditch alongside of N.J. Department of Transportation yard had a heavy green cast to it. Since it was 5:45 p.m., they could not get into the NJDOT yard as everything was locked. They reported that the color seemed to emanate from the DOT yard but the evidence was inconclusive. On the following day they visited the yard and met with Mr. M. Devito, superintendent, concerning this problem. Mr. Devito denied that they had washed any green material into the brook, however, he promised that the yard and area would be cleaned. The brook cleared itself and by March 26 all evidence of the color was gone. Since this was a single occurence, we were unable to find the source.

* * * *

Nishayne Brook, a tributary of Second River, flows partially covered and partially exposed through Orange and East Orange. A problem we have is from a vacant lot in East Orange (on the Orange border), Block 900, Lots, 3, 6, and 8 on Long Street between Hayward Street and Dodd Street next to the Essex County Traffic Department. Unknown individuals occasionally park their cars in this area, drain the oil, and allow it to reach the brook causing an oil pollution. PVSC requested aid from the East Orange police and Essex County Traffic Department in ascertaining what individuals are guilty of this violation.

When nothing further was heard, PVSC wrote to Mr. Evans, Director of Dept. of Inspection and Licensing, requesting a reply from East Orange indicating what action they could take to prevent a recurrance of this type of pollution. Director Evans replied that the owner was put under notice to remove overgrowth, litter and debris from the lots, but in view of the fact that the owner was seeking a variance to erect new homes on that property, they were not insisting upon fencing. He stated that it would be the owner's responsibility to keep the lot free of illegally parked or stored vehicles. PVSC was informed that a variance was granted on September 14, and the owner was attempting to get Federal funds for financing construction.

* * * *

On the morning of June 7, 1976, we received a telephone call from a Mr. L. Taylor of Shulton Industries informing us that Weasel Brook, behind the Shulton property, had a chalky white cast to it.

Inspectors Costello and Parr started tracing this back at 9:15 a.m. to slightly north of Route 46 where the stream had turned clear and the inspectors lost the trail.

The inspectors then started to check catch basins and industrial properties upstream of this point. On the following day (June 8, 1976) they found traces of a white material that had been dumped in the storm sewer catch basin in front of 75 Wallerman Avenue, Clifton, by person or persons unknown. The City of Clifton Sewer Department was notified but they were unable to find the individual responsible.

* * *

On June 30, 1976, a Mr. R. Mast of Ridgewood, while riding his bicycle along Ho-Ho-Kus Brook near the Spring Avenue Bridge at 10 a.m., noticed a milky substance coming from north of Grove St. He stated that although there was no odor there was a considerable number of dead fish scattered on the banks of the stream. Mr. Mast called Mr. E. Gage, Health Officer of Ridgewood, at 10:10 a.m. who went to the area and took samples which were sent to Bergen Pines Hospital and Ridgewood Treatment Plant for analysis. Mr. Gage then went upstream and noted that in the vicinity of Ridgewood High School the stream was clear and no dead fish were visible. His efforts to locate the source of pollution were unsuccessful. He stated that the duration of the stream discoloation was approximately three hours before an early afternoon thundershower purged Ho-Ho-Kus Brook.

* * *

On July 21, 1976, Inspector Perrapato observed a foam in Saddle River at the Midland Avenue Bridge. Although he checked the river up to Fair Lawn, he was unable to locate the source of the pollution.

* * *

On July 27, 1976, Mr. W. Hope of Paterson called NJDEP concerning a white foaming material in Third River. PVSC received a call on this matter on August 9, 1976 at 1:30 p.m. and referred the complaint to PVSC Inspector W. Fiore. Mr. Fiore contacted Mr. Hope who explained the complaint. Mr. Fiore told him that he makes a daily check of the area but would do so again concentrating on the specific area described.

Inspector Fiore found the area clear and so notified Mr. Hope. Mr. Fiore also gave Mr. Hope the PVSC telephone number so that if the pollution is seen again we could check it within a short period of time.

* * *

On October 7, 1976 at 1:55 p.m., PVSC received a call from NJDEP that Mr. Morton Verhulst of Clifton had complained of a fish kill in the Memorial Park Pond (Clifton) a tributary of Weasel Brook. Inspector Costello investigated and reported the pond had about 125 apparently healthy ducks and a large number of wild geese swimming and walking at the edge.

The inspector reported evidence of dog defecation around the pond but that he saw no dead fish, however, he did observe light green algae at the west end of the pond. Samples taken were analysed showing a fecal coliform count of 1400 (not bad considering the dogs and ducks) and a C.O.D. of 400 (very high but could be caused by algae, dead leaves, etc.)

A review of the city map showed that the storm sewers leading into the pond drain the Clifton High School grounds and surrounding streets but discharge only during wet weather.

Samples taken subsequently on October 14, 21 and 28 showed the C.O.D. diminished to 48, 40 and 24 p.p.m. It is difficult to say at this time whether some person unknown had put an illegal discharge into one of the street catch basins or whether the high C.O.D. was the result of dying algae but it was more probably the latter.

* * *

Odors were noticed at Jordan Brook by Inspector W. Fiore and a sample indicated high C.O.D. and T.O.C. Upon policing the area suspicious discharges were not noticed but the brook was dammed-up with sand and debris between Fairlawn Avenue and Berdan Avenue restricting the stream so there was practically no flow. This, combined with the lack of rain, caused a stagnent condition to exist wherein dead vegetation started to decay. Inspector Fiore contacted the Fair Lawn Engineer, Mr. F. Peruggi, and explained the situation. Mr. Peruggi stated he was attempting to have the Bergen County Board of Freeholders have Jordan Brook dredged to relieve this condition. By October, the debris had been removed and the brook was flowing freely.

* * *

On November 5, 1976 at about 1:30 p.m. PVSC received a call from the Nutley Parks Department employee reporting oil in Third River at the rear of the Nutley Police Station. Inspectors Cordasco and Darmstatter traced it back to a catch basin located in an A & P parking lot on Harrison Street. It appears some unknown person dropped oil into the catch basin and the rain that morning washed it into Third River.

Mr. Battista, Manager of the A & P, was notified and requested that he police the area to prevent a recurrence.

* * *

On November 29, 1976, PVSC received a call (approx. 2:30 p.m.) of a red dye and foam in Third River at the rear of Atlantic Chemical Co. Inspector Darmstatter, upon investigating, found no dye but did observe islands of foam which he back tracked to Yantacaw Pond. He attempted to trace this back further but could not determine the source (which had cleared up).

* * *

* * *

Other times, although we knew what had happened, there was nothing we could do except expedite clean-up, such as the following:

* * *

On Thursday night, March 25, 1976, at about 6:30 p.m. a fire broke out at Fabricolor Manufacturing Corp. located at 24½ Van Houten St., Paterson. The fire was brought under control at 9:15 p.m., however, during the fighting of the fire about 50,000 to 100,000 pounds of dye stored in the warehouse was destroyed and washed into the Passaic River changing the river into a multicolor mess visible at least three miles downstream. Inspector Tateo reported that the discoloration of the river had disappeared at his inspection at 9 a.m., Saturday, March 27, 1976.

* * *

On May 26, 1976 an oil tank at the Wellen Oil Company in Jersey City ruptured and more than 150,000 gallons of heavy fuel oil was spilled into the Hackensack River. Although attempts were made to contain and remove the oil, varying amounts of the oil reached the meadowland, Newark Bay and had been carried by the tide back up the Passaic River. Some patches of the oil had been spotted in the Passaic River along Route 21 above Harrison by the end of May. Oil from this accident could be seen along the banks of the Passaic River up to and including the area of Jackson Street Bridge in Newark, as late as the middle of July 1976.

* * *

On June 8, 1976, at approximately 3 p.m. a truck, with a cargo of liquid soap, driven by Luis Valle, was exiting N.J. Route 21 at Mill Street in Belleville and had liquid soap leaking onto his rear tires. As the driver attempted a left turn, he slid sideways and the truck flipped on its side damaging two other vehicles. The soap spilled on the street and was washed into a nearby storm catch basin by firemen called to the scene.

* * *

On June 28, 1976, sewage was discovered going into the Passaic River from the City of Passaic Acryigg Avenue Storm Sewer. Investigation revealed that a plug which had blocked an old line connecting the sanitary line to the storm line had been dislodged. The PVSC line crew replaced the plug.

* * *

Some time between 4 a.m. and 7 a.m. on October 5, 1976 an unknown boat or barge hit the northern platform of the Sun Oil Company's dock (436 Doremus Avenue, Newark). The force of the impact broke a section of the pier and an 8 inch gasoline pressure line allowing gasoline to run into the Passaic River at its junction with Newark Bay. It was estimated that 20,000 gallons of gasoline was discharged by the time the break was discovered (7 a.m.) and the flow halted by isolating the cracked line. The Coast Guard, Fire Department and USEPA were notified and the company attempted to contain the spill by putting floating booms in the water around the dock.

At 8:30 a.m. a tank truck from the Metropolitan Petroleum Company of Jersey City arrived and started to vacuum the gasoline from the water. At 10 a.m. on October 6, when Metropolitan had completed its vacuuming, it was estimated that 90% of the gasoline had been recovered. The remaining 2,000 gallons had dissipated through evaporation and dispersion.

* * *

* * *

Then there was various work done in and around the Passaic River and its tributaries that temporarily affected the quality of the water.

* * *

As was reported last year, Sprout Brook was being dredged and widened by the Bergen County Mosquito Commission (see 1975 Annual Report, pg. 27). The work had been halted in July 1975 and was resumed on February 13, 1976, and we were informed will continue until the work goes from Data Service Corp. upstream under Route 17 to Midland Avenue, Paramus, N.J.

The work south of Route 17 appeared to be completed as of the end of May. The equipmentwas relocated to the north side of Route 17 in early June, but by June 25 the equipment had been removed. No further work was done in 1976.

* * *

On December 23, 1975, River Inspector J. Parr noted that a contractor, D. A. & L. Caruso was cutting down trees on both sides of Weasel Brook. On December 29, 1975 Inspector Parr obtained the prints showing that Weasel Brook was to be enclosed in a 11 foot wide by 7 foot high corregated pipe for about 2,800 feet starting at Lewis Place, Clifton, going north to about the Erie Lackawanna Railroad.

On February 27th, Inspector Parr reported they had installed approximately 2,050 feet of pipe and were then at the point where Clifton Avenue crossed Weasel Brook. In addition, they were installing about 2,660 feet of 24" and 30" sanitary sewer, of which they had completed about 2,300 feet. Construction work continued throughout the summer, and on October 12, the installation was completed. The muddy condition in the brook disappeared shortly thereafter. Grading and clean-up operations continued for about three weeks, but this work had no effect on the brook. It will now be more difficult to detect and trace pollutions to their source.

* * *

PVSC had received complaints of the recent muddy appearance of Pearl Brook. Upon investigation we discovered that clean water was being intermittently discharged into Pearl Brook at Edward Road, Clifton, from a chamber owned by the Jersey City Water Department. The volume of water (although not polluting itself) caused a turbulence and disturbance of the bank and bed giving the stream the muddy texture. On April 23, PVSC wrote to Jersey City informing them of the situation and requested information as to what caused the problem and what was being done to correct it. On May 25, 1976, Mr. P. Chmiel, Senior Engineer, replied, stating that the reason for the excessive flows was due to the cement relining of one of the 72-inch water mains. He also stated that a study was being made which they hoped would eliminate the overflow chamber completely.

However, periodically during the year, the Jersey City Water Department still discharged water into Pearl Brook to flush its lines. Although this area was checked daily, flow was observed on only July 13 and July 15, 1976. Although the discharge itself is clear, Pearl Brook takes on a muddy appearance from turbulence.

* * *

The Erie Lackawanna Railroad reconstruction of their bridge, which started in 1975 (see 1975 Annual Report, page 30), continued during the first three months of the year. The barges that were obstructing the Passaic River during this reconstruction were finally removed and the area made clear as of April 8, 1976.

* * *

On Friday, March 5, 1976, the Great Lakes Dredge and Dock Company, under a contract with the Army Corps of Engineers, started to dredge the Passaic River in the area of North Arlington and Lyndhurst. The dredging continued until April 19, 1976, proceeding to the Union Avenue bridge in Rutherford.

* * *

On April 5, 1976, Inspector F. Cupo reported that the Town of Lyndhurst was constructing a new 42" storm sewer along Webster Avenue, Court Street and Tontine Avenue with a pump station. This sewer, built to relieve a flood condition in the area, will be discharged into the Passaic River at Tontine Avenue, and will be referred to as the Tontine Avenue Storm Sewer. This sewer will flow to the pumping station at the William F. Gallagher Recreation Area Park and is designed to relieve local flooding at Tontine Avenue and Park Avenue.

By August 6, the footings for the pump station had been poured and the piping was completed on Tontine Avenue. In September the tie-in to the pump station was completed. However, due to difficulties with the contractor, Dyne and Lenihan Construction Company of Ramsey, N. J., construction was halted before the pump station was completed and the pumps connected.

* * *

Work on widening of the Outwater Lane bridge by Bergen County caused Saddle River to become muddy at times. We were originally told that the target date for completion was the latter part of August 1976. During this work there was intermittent disturbance of the river bed with accompanying turbidity created. Work on the new bridge continued throughout the summer. Construction was completed on October 8, and the bridge was re-opened.

* * *

The installation of the 520 feet of 42 inch concrete storm sewer from Lester St., Wallington, to the Passaic River (at the Market St. Bridge),which started July 6, 1976 was completed August 4, 1976.

The second phase of this contract, the installation of approximately 250 ft. of a new 8 inch sanitary sewer from Lester St., North on Wallington Ave. to an existing sanitary manhole, was completed on September 10, 1976. The work was done by Z.Z. Contractors of Newark and the inspector reported that no sanitary waste was diverted to the storm sewer or river during this construction.

* * *

The Bergen County Park Commission had retaining walls (on both sides of the river) constructed for a distance of approximately 100 feet on the east side of Saddle River Road, Saddle Brook. The construction on the concrete walls began approximately December 2, 1976 and was completed by December 21, 1976. A protective 5 foot wire fence was installed on both retaining walls.

* * *

* * *

There were times PVSC responded to pollution calls which were outside of our legal jurisdictional area. We usually did this to aid the N. J. Department of Environmental Protection, as per their request.

* * *

On August 5, at the request of NJDEP, a call was made to Mr. Klaus of Haledon by PVSC Inspector Tomaro to obtain information about a complaint he made on the pollution of Molly Ann's Brook. Mr. Klaus reported that somedays the brook looked milky white. Although this brook is not under PVSC jurisdiction, as a courtesy the PVSC checked the situation and found it to be satisfactory at that time (Aug. 6, 1976). Inspector Tomaro informed Mr. Klaus he would keep that section of the brook under observation.

* * *

On September 3, 1976, Mr. Spano, safety inspector for A. Ferro, General Contractor, called PVSC and reported dead fish in Molly Ann's Brook near Crosby and Rossiter Ave. Paterson. The Ferro Compnay is repairing the Hillcrest Storm Sewer for the City of Paterson and they did not want to be blamed for the fish kill.

Inspector M. Tomaro reported seeing about 10 dead fish in the brook at that location in a small stagnant pocket which also had a light oily film. The inspector checked upstream and saw fish swimming and the brook clear. Upon checking further upstream Mr. Tomaro could find no signs of a discharge or accident that could have caused the fish kill, however, he did report that the stream was low and had very little water. The Ferro Co. was cautioned to make sure that no oil from their construction equipment reached the stream.

* * *

Then there were near-misses where possible pollutions were averted by fast action, or where the apparent pollution really wasn't a pollution.

* * *

On Tuesday, January 20, 1976, PVSC received a call from Mr. J. Soldo, Supt. of Public Works of the Town of Belleville informing us of a broken 10" sanitary sewer on Newark Avenue near Frederick Street. Inspector Cordasco was assigned to check and he reported that the Belleville Department of Public Works personnel were pumping the sewage around the break area while repairs were made, thus there was no pollution due to the break. The repairs were completed on January 26, 1976.

* * *

On Thursday, March 18, 1976, at 8:50 a.m. a light red colored liquid was being discharged onto Belmont Ave. at Barbour St. in the Borough of Haledon. It was discovered that the pressure line from Allied Chemical had broken and their waste was being forced up through cracks in the street. They immediately shut down the sewer line and the flow stopped by 9:15 a.m. Repairs were made and completed March 22, 1976. A second leak was discovered on Belmont Ave. between Clinton Ave. and Zabriskie St., when the flow was resumed. Flow was again halted and repairs started. The Semerano Construction Company was hired to repair the second leak. They worked from Tuesday March 30 through April 14, 1976 and repaired a shattered joint in the clay pipe. At 4 p.m. on Wednesday, April 14, the sewer line was opened up and sewerage was allowed to flow into the sewer and no further leak was detected. During all of the above, sewage had been diverted through alternate paths so that no detectable pollution occurred.

* * *

On April 23, 1976 at 11:10 a.m., Mr. John Nadler reported to PVSC that they had received a call that colored dye or an ink substance was discharging into Main St. in front of 681 Main St. in Belleville. Inspector Fiore, Supv. Cuccinello and Chief Cupo investigated and found a sanitary sewer overflowing from a manhole located in the front of a garage. He contacted Mr. J. Soldo, Supt. of Public Works in Belleville, who responded by having his crew clear a blockage in the line and the flow was back to normal at 1;35 p.m. the same day. The Inspector reported that the volume of overflow was small and the trickle did not reach the storm sewer catch basin nor the Passaic River.

* * *

On May 7, 1976, PVSC received a call complaining about pollution from an 18-inch pipe leading to Third River behind 43 Hearthstone Drive, Bloomfield. Investigation revealed that the pipe was capped and the complainant was actually concerned with debris on the side of the embankment going into the river. The inspector felt the debris problem was slight, but informed the complainant to contact the Bloomfield Board of Health on bank debris clean-up.

* * *

On May 10, 1976 PVSC received a call concerning an oil spill in front of 329 Clifton Avenue. Investigation revealed that it was caused by the Pruder Oil Company of Kearny while making a delivery. The oil company was contacted and they sent a man to clean up the spilled oil. It is to be noted that no oil reached the catch basin or stream.

* * *

On June 18, 1976, PVSC received a complaint about odors coming from Lodi Brook in the area of Brook Street and Kennedy Drive in Lodi. Mr. Cupo and Inspector Tateo checked the area and found Lodi Brook running normal and odor free, however, there had been an air borne odor of the type that had formerly been associated with Stepan Chemical Co. of Maywood. Inspector Perrapato visited the company and was informed that the NJDEP Air Pollution Department had been there. It appears the plant had developed some air pollution problems but it had been corrected and at the time of Inspector Perrapato's visit he reported no violations.

* * *

On July 23, 1976, a hose from a truck owned by O'Boyle Tank Lines, while delivering glycerin to Beecham Company, Clifton, N.J., ruptured and about 150 gallons of glycerin spilled on the driveway. The material was contained until the Gaess Environmental Service Corp. of Passaic was contacted and arrived to clean up the area. Inspectors Parr and Costello reported that none of the material reached the catch basin and the area was cleaned by 11:30 a.m. on the same day.

* * *

PVSC received a report of a discharge going into the Passaic River at the Market St. Bridge area from Elmwood Park. Inspector Perrapato reported that it came from the Bellemead Development Corp. from 10 a.m. to 2:30 p.m. on October 15, 1976 when they were testing their sprinkler and fire system. The water was clear city water. They test their system approximately twice a year.

* * *

On October 23, 1976, a problem occurred at the Sun Oil Company. While filling a tank, it was overloaded causing a spill into the area between the tank and the fire wall. The gasoline was contained and none reached either the river nor the sewer.

* * *

On November 30, 1976, Inspector Costello reported that a manhole on Kuller Road (near Weasel Brook) in Clifton was overflowing onto the street. Investigation revealed that the back-up occurred because the pump in the Wallman Avenue pumping station had stopped. The Clifton D.P.W., upon being notified, had a man reset the circuit breaker thus correcting the problem before any sewage reached the river.

* * *

Poor housekeeping was noted at Custom Optics, Inc., in Saddle Brook where oil was leaking into the yard from a dumpster at the loading platform. Inspector Parr felt a rain could carry it to Schroeder's Brook. He contacted Mr. C. Poole, Vice President, who had the grounds cleaned.

* * *

* * *

We not only had problems in the River, but associated problems in the sewers:

* * *

Complaints of obnoxious odors emanating from the sanitary sewer on Sherwood Ave., Paterson, were received in March from residents of the area by the City of Paterson. The City of Paterson officials believed that these odors were caused by sewage from the Haledon sewer system which entered into the Paterson system on its way to the PVSC trunk sewer under a contract between the City of Paterson and the Borough of Haledon.

People were interviewed by PVSC and described an odor like formaldahyde. Since the odor was not present at that time nor subsequently, it was impossible to determine for certain where the odor originated. However, by reviewing the industries in the area it was determined that Jersey State Chemical Co., in Haledon did use formaldahyde in their process. Mr. Goldberg and Mr. D'Ascensio visited this plant on March 1, 1976 and, although they reported a faint chemical odor from the plant, they stated it could not be clearly identified and it was not obnoxious nor irritating to the eyes. They spoke with Mr. Thomas Belle, plant superintendent, who explained that vapors were piped to a catalytic burner. The process is a batch process made in 1,000 gallon kettles and as they completed each 1,000 gallons of textile finishing chemicals the kettle was drained of the product. They stated they destroyed the small residue of each kettle by diluting what he estimated was 1 quart with 1,000 gallons of water and adding approximately 3½ gallons of caustic soda to destroy the odor. The material was then sewered. He stated that this method was approved by the NJDEP.

Since this was a batch process that occurred only when the kettles were cleaned, it was possible that errors could cause a problem. Mr. Tateo left his card with some people in the neighborhood with instructions to call him if the odor occurred again. In addition, Mr. Tateo personally checked the area throughout the year, with negative results.

PVSC received no further reports of odors during the remainder of the year.

* * *

A 36 inch brick sanitary sewer on Van Houten Street between Prospect and Cianci Streets in Paterson collapsed on June 7, 1976. A large amount of debris entered the sewer and same was washed into the Passaic Valley Trunk Sewer in Paterson. The A. Ferro Construction Company of Wayne, N.J., was hired by Paterson to repair the sewer. They replaced the section of old 36 inch brick sewer with 75 feet of 36" Vitrified Tile extra heavy pipe. The repair work was completed on Friday, June 23rd, however, during the time of repair the sewage was diverted around the break, back into the Paterson system, thence to the PVSC truck sewer. Unfortunately, the contractor cleaning the PVSC sewer had reported that the first section of sewer cleaned (from Warren St. 4700 feet downstream) had again filled with material to a depth greater than originally removed. He had been directed to reclean this line.

* * *

On August 4, 1976 at the request of the Clifton Health Department, the PVSC took a sample of the waste from the Swepco Tube Corporation, 1 Clifton Blvd., Clifton, going into the Clifton sanitary sewer. The pH of the sample was 1.8 which, while not polluting a stream, was a clear violation of PVSC and Clifton regulations which do not allow a discharge lower than a pH of 5. Mr. Lubetkin wrote to Swepco on August 6 informing them that the discharge was illegal and directed them to institute proper pretreatment to control the pH to between 5 and 9. Swepco was also informed that pretreatment of heavy metals may have to be instituted as soon as such pretreatment standards are promulgated. Although they did not reply, a sample taken on August 12 was satisfactory (pH 7.4). PVSC is continuing to monitor this discharge.

* * *

On August 5, 1976 PVSC Inspector Tomaro came upon the Faro Construction Corp. pumping sewage from a manhole on Albion Ave. to a manhole near Redwood Ave., Paterson. There was a small cave-in of the street between the two manholes caused by the collapse of a 12" sanitary sewer.

The work on repairing the sewer was completed August 25, 1976 but no pollution occurred during this repair as the sewage was pumped from the upstream manhole to the downstream manhole.

* * *

On October 13, 1976, PVSC received a call from D. Malatesta, Paterson City Engineer, complaining that a paste-like material was blocking an 8 inch sanitary sewer on E. 15th St. near 7th Ave. and asked for help in determining the source. PVSC personnel met with the Paterson Public Works crew and traced this material to Bryant Industries of 200 E. 16th St. They use a material "AP 211 Plastesol" adhesive and there was evidence that this material had leaked into the sewer. PVSC informed Paterson of its findings.

* * *

On October 21, 1976, PVSC was notified of a break in the Newark sewer at Haynes Avenue. The collapsed sewer impeded the flow so that industrial waste overflowed onto the street. A sample traced to the N. J. Galvanizing and Tinning Works, Inc., at 139 Haynes Avenue, was highly acid (pH 3). On October 25, Mr. D'Ascensio, Mr. Mack (PVSC), and Mr. Benz (Newark), met with Mr. Gregory, President. Their investigation revealed that the company's installed pretreatment facility was not operating properly. Samples taken at that time had a pH of 2.2 and 2. Mr. D'Ascensio informed Mr. Gregory that his company was violating PVSC rules and regulations and must install suitable pretreatment. Mr. Benz stated that Newark was exploring the possibility of installing a new sanitary sewer to alleviate the use of the ditch (now used by N. J. Galvanizing and Tinning Works) to convey the industrial waste to the sanitary sewer.

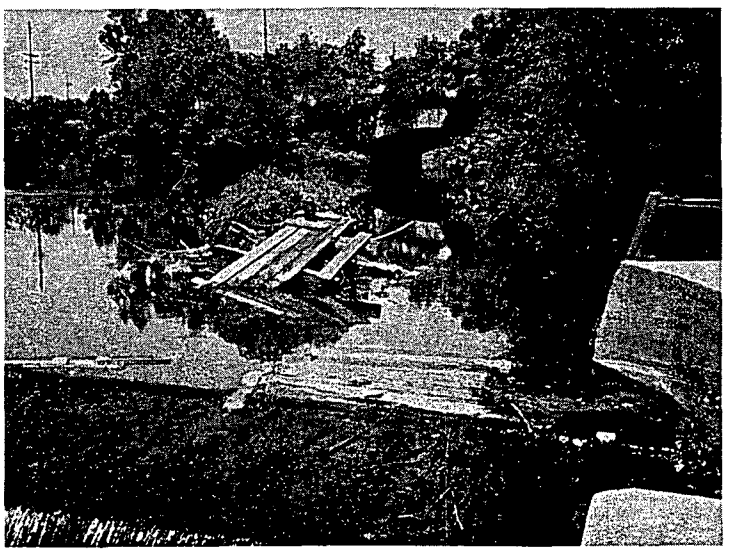
Mr. D'Ascensio wrote to Newark on November 3, informed them of the violation, and requested that they enforce PVSC rules and regulations for discharges to their sanitary sewers. The City of Newark held a conference with N. J. Galvanizing on November 15. At that conference the company affirmed its intention to install suitable pretreatment equipment and Newark advised that preliminary action was underway to provide improved sewerage facilities in the Bessemer Street/Haynes Avenue area.

Mr. Gregory wrote to Mr. D'Ascensio on December 20, 1976, stating that they had met with Newark and their consultant was working on a design to pretreat the acid waste prior to discharge to the municipal sewer. Specifically, the plan calls for the installation of a holding tank to receive the acid waste. Liquid caustic will be introduced to neutralize the acid, and the pretreated material will then be discharged to the municipal sewer. Mr. Gregory stated he would furnish PVSC with copies of plans and specifications by January 31, 1977 and complete construction by March 31. When the installation is completed, the other problem will still remain, that of eliminating the use of the ditch by installing a new municipal sewer line.

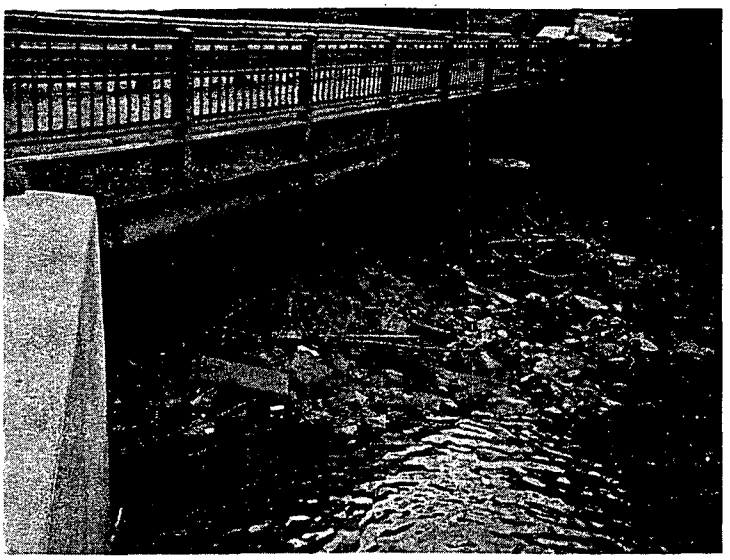
* * *

* * *

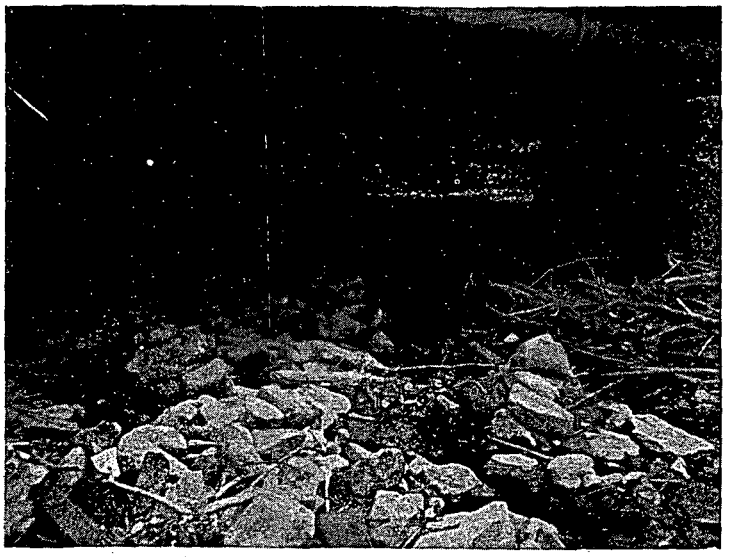
Debris is a tremendous problem that we seem not to be able to solve. We do not seem to have the laws to cope with this problem. To show what we mean, the following, although not pollutions in our legal sense, were some very unappealing scenes.



Third River Above the Dam at River Road, Clifton
7/28/76



Third River at River Road, Clifton
7/28/76



Third River at River Road, Clifton
7/28/76

Millbank Brook at 185 Gregg St., Lodi
7/28/76

We need stronger regulations to get debris cleaned from our streams

After publication of the previous photos in our July monthly report, we report the following:

* * *

Obstruction of Second River at Mill Street Bridge in Belleville by shopping carts, etc., was getting worse and worse obstructing the flow of the river. Since the stream was near the PVSC Second River Yard, the Superintendent directed the PVSC line maintenance crew to remove the debris at that location. On August 26, 1976, thirteen shopping carts and other debris were removed from the river and taken to the dump.

* * *

It was also noted from a visit to Nichols Pond that Recreation Department men had removed wood and debris from the foot of the dam at Nichols Pond.

* * *

On August 13, 1976, PVSC received a complaint that obstructions in Schroeders Brook behind the Amloid Corporation at 81 No. 5th Street, Saddle Brook, were causing local flooding. PVSC Inspector J. Parr verified the existence of the debris and contacted Mr. F. Calandrillo of the Saddle Brook Public Works Department and explained the problem. Mr. Calandrillo promised he would have a work crew clear the debris. This was done in October 1976.

* * *

During one of the storms a tree fell into the Third River (at W. Passaic Avenue, Bloomfield) partially blocking the flow. PVSC Inspector W. Fiore contacted Director S. Friedman of Bloomfield, informing him of the situation on August 30, 1976, and was assured by Mr. Friedman that he would have the tree removed. This was done as of November 3, 1976.

* * *

On October 14, 1976, Inspector Tomaro complained to Mr. Allan McCabe, Supt. of Public Works of Paterson about debris which had been dumped down the bank at E. 11th St. Mr. McCabe informed the inspector that, after inspecting the area, his men had advised him that a crane would be needed to clear that area of debris. Since their crane was under repair, he could not give a date when this would be done. By the end of the year the situation remained the same, since the crane had not yet been repaired.

* * *

Inspector Fiore, on a routine inspection on October 18, 1976, noticed that Goffle Brook again had an accumulation of debris at the rear of Hawthorne Realty property. Previously, this company had installed steel grates to prevent material from floating under their building (the path of Goffle Brook) and, as a result, the rubble must be periodically cleared from Goffle Brook. Inspector Fiore spoke to both Mr. Gilmartin of Hawthorne and a representative of the Passaic County Mosquito Commission.

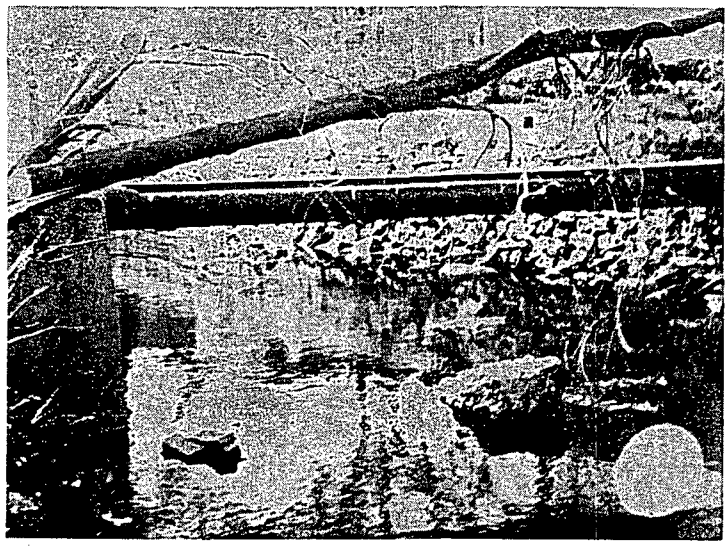
On November 15, the Mosquito Commission started clearing Goffle Brook and on November 17, 1976 this area of the brook was again clear of debris.

Debris removed from Goffle Brook at Hawthorne Realty by Passaic County Mosquito Commission. (Date of picture 11/16/76)

* * *

On November 22, 1976, Inspector Darmstatter noticed that a large tree had been felled at the rear of the Atlantic Chemical Company of Clifton. The weight of the tree was held by a fence. Although the tree was over an 8" sanitary sewer line which was suspended acrossThird River, there was danger that the fence would fail and the tree could drop on the sewer line and possibly break it.

Inspector Darmstatter reported the matter to Supervisor F. Cupo and together they notified the D.P.W. in Clifton. The tree was removed by noon November 23, 1976.



Felled tree across Third River above 8" sanitary sewer line. (Date of picture 11/22/76)

* * *

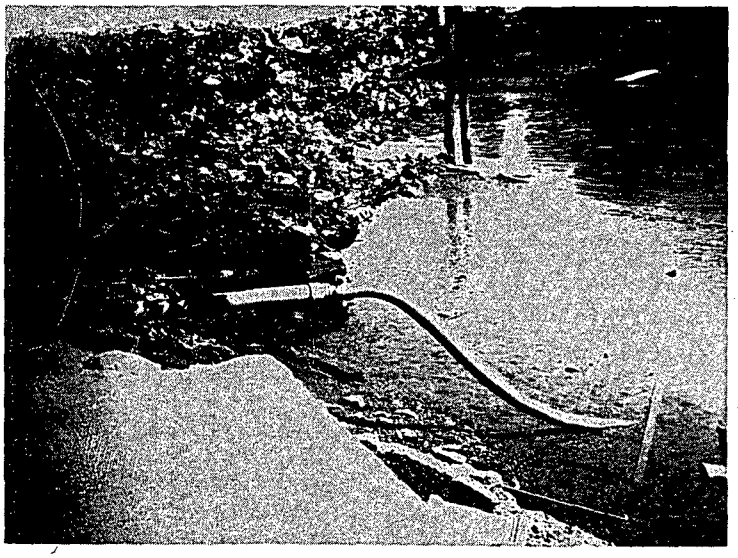
On April 13, 1976 the Komar Barge known as Casper's River Barge Inn broke its moorings and drifted across the Passaic River where it partially sank on the Rutherford shore.

The barge went adrift at 1:43 a.m. "in a shower of sparks as electric lines from shore ruptured, along with water and sewer lines". The quote is from the April 14, 1976 Paterson News. Mr. A. Komar,owner, stated he would return the barge and should reopen within a month.

One item that did bother us (although we should be use to it by now) was from the April 22, 1976 Carlstadt Leader Free Press which said,

> "An inspection on the shore indicated there had been no sewerage pipes leading from the barge - and that despite the so-called vigilance of the Passaic Valley Sewerage Commissioners the saloon was apparently dumping its sewerage into the river."

All we can say is "t'ain't so". If the writers of the paper desired, we could have shown them not only the broken sewer line, but the special connection made into the PVSC manhole for this sewerage (paid for by Komar) and we can show them the reports made in 1966 when PVSC had Mr. A. Komar on "violation" and forced the installation of the sewer. We can understand anyone wondering and questioning, but it seems to us that anyone desiring accuracy in reporting to its readers could have checked easily with just a phone call.



Broken Sewer Line

The "Casper's River Barge Inn", according to its owner, is being replaced by a 160 foot boat (docked at the same location on September 25, 1976) to be called "The Passaic River Queen". As of the end of 1976, work on this was not completed, and the sanitary sewer had not been reconnected.

* * *

The Chemical Leaman Tank Lines, Inc. completed their new tank cleaning and wash water disposal system in September. On September 30, an inspection of these facilities was made by PVSC personnel. This is the completion of work started because of a pollution discovered by PVSC in July 1975.

* * *

Since this is the Bicentennial Year, I thought the readers might be interested in a reproduction of the American Revolution Bicentennial Map of Bergen County, on the following page.

* * *

Following the Bicentennial Map, is a schematic diagram of the Passaic River and its tributaries in the PVSC district.


1774 The 1783
American Revolution
Bicentennial Map
of BERGEN County
New Jersey
Compiled & Created
by Bergen County Cultural & Heritage Commission
American Retreat
Church
Point of Interest
Blockhouse
Skirmish
Graves
Attack or Battle
Mill
Washington's H.Q.
Scale:
Miles
Drawn by Joel Altshuler
Genl. George Washington
Lt. Genl. Lord Cornwallis
Ackerman Zabriskie-Steuben House
First Reformed Church Hackensack
Hackensack Attacked and Burned Mar. 23, 1780
After American defeat at Fort Washington, British forces crossed the Hudson, reaching Fort Lee on Nov. 20, 1776.
Province Line of 1769
The Highlands
Ramapough Mountains
BERGEN COUNTY
PASSAIC COUNTY 1837
NEW YORK
NEW JERSEY
Orange Co.
ESSEX Co. 1683-1837
ESSEX Co.
HUDSON Co. 1840
HUDSON RIVER
Haverstraw Bay
Tappan Zee
Kings Ferry
Fort Lafayette
Verplanck's Point
Stony Point
Smith's
High Tor
Long Clove
Tellers Point
Coe's Tavern
New City
Kakiat
Court House
Slaughters Landing
Sing Sing
Verdrietege Hook
Bayard's
Clarkstown
Nyack Landing
Tarry town
Mabie's Mill
Tappan Slote
Tappan
Orangetown
Old Tappan
Andre's Grave
De Wint's
Sneden's Landing
Dobbs Ferry
Rock Land
Harringtown
Old Hook
Closter
Upper Closter Landing
Demarest's Mill
Philipse's
New Dock
Lower Closter Landing
Liberty Pole
Teaneck
Tienekill
Schraalenburgh
English Neighbourhood
Kingsbridge
Spuyten Duyvil
Fort Washington
Fort Lee
Bourdett's Landing
Vriessendael
Bergen Woods
Bull's Ferry
Three Pidgeons
Weehawken
Hoboken
Hoboken Ferry
New York
Paulus Hook Ferry
Prior's Mill
Bergen
Bergen Neck
Newark
Brown's Ferry
Douw's Ferry
Cedar Swamp
Snake Hill
Secaucus
New Barbadoes Neck
Schuyler's Copper Mine
Passaic River
Second River
Hackensack River
Berry's Creek
Moonachie
The Little Ferry
Old Hackensack
Winkelman
Polifly
Hackensack
Peter Zabriskie's
Lutheran Church
Jn Zabriskie's
Parsonage
New Bridge
Old Bridge
Steenrapie
Kinderkamack
Sluckup
Paramus
Saddle River
Jb Zabriskie's Mills
Slooterdam
Wagaraw
Totowa
Great Falls
Wesel
Wesel Brook
The Notch
Little Falls
Acquackanonk
Cranetown
Third River
Watsessing
Mountain Meetinghouse
Preakness
Col. Dey's
The Forks
Horse Neck
Pompton River
Pompton Plains
Pompton
Schuyler's
Iron Works
The Ponds
Yellow Tavern
Kampgauw
H. Van Allen's
Brabant
Jn Fell's
Wierimus
Pascack
Col. Baylor's Dragoons
Prevost's (The Hermitage)
Hoppertown
Great Rock
Ramapough
Belgrove Store
Lutheran Church
A. Hopper's
Ramapough River
Capt. Board's
Wanaque R.
Ringwood River
Ringwood Iron Works
Long Pond Iron Works
R. Erskine's
Forge
Furnace
Sterling Furnace
Continental Road
The Clove
High Torne
Sidman's Tavern
Slott's
Suffern's Tavern
Mahwah River
Hackensack
Short Clove
Pascack Brook
Nauraushaun
Hackensack River

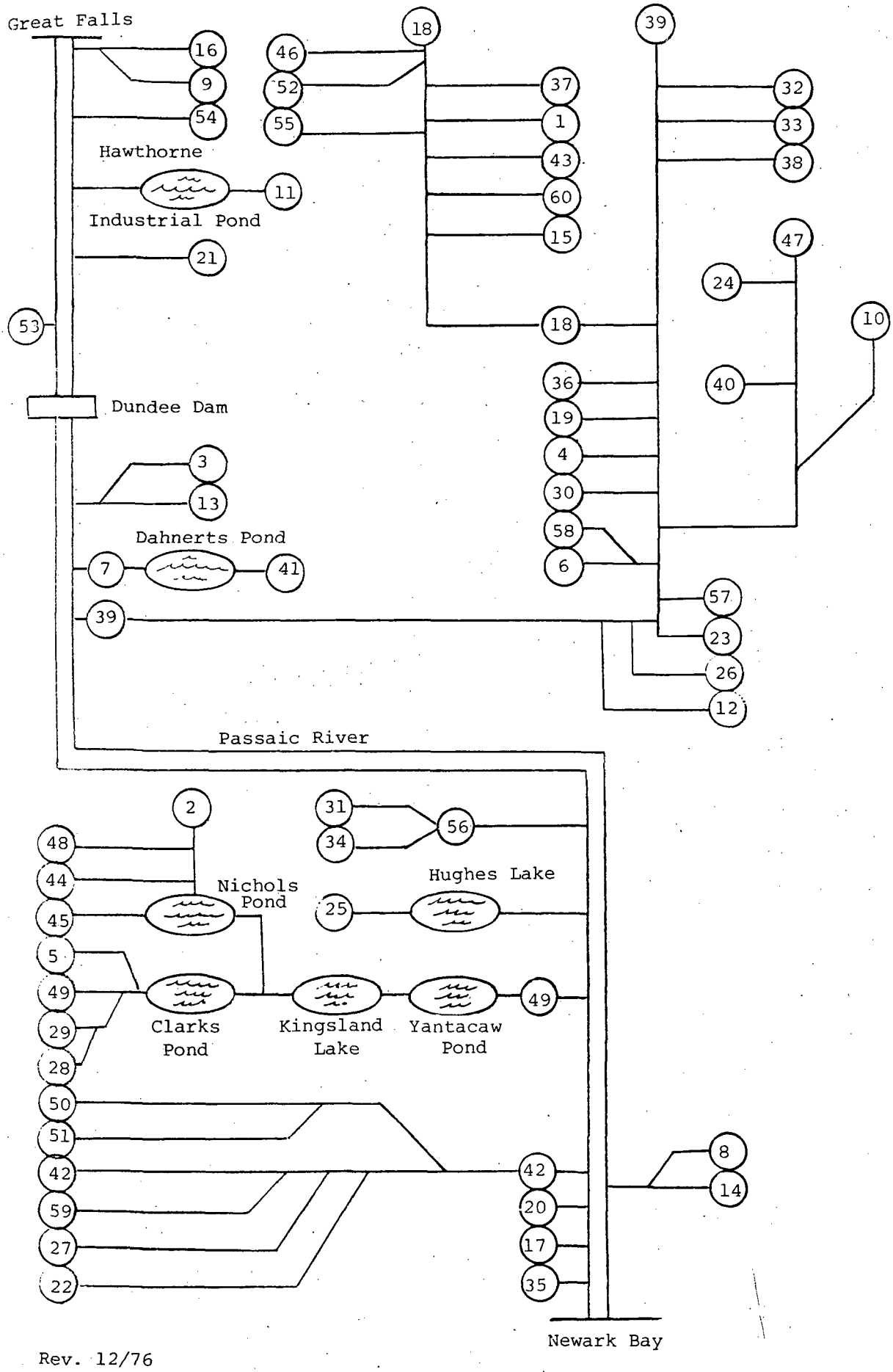
PASSAIC RIVER TRIBUTARIES BETWEEN THE GREAT FALLS AND THE MOUTH AT NEWARK BAY

NO.	NAME OF TRIBUTARY	
1.	Allendale Brook	Enters Hohokus Brook at Waldwick
2.	Allwood Brook	Enters Nichols Pond at Nutley (Kingsland Rd.)
3.	Arcadia Brook	Enters Fleischer Brook at Elmwood Park
4.	Beaverdam Brook	Enters Saddle River at Fairlawn
5.	Clarks Brook	Enters Third River at Bloomfield
6.	Coalberg Brook	Enters Saddle River at Saddle Brook
7.	Dahnert's Brook	Enters Passaic River at Garfield
8.	Dead Horse Creek	Enters Frank Creek at Kearny
9.	Deep Val Brook AKA, Washington Brook	Enters Goffle Brook at Hawthorne
10.	Delford Brook	Enters Sprout Brook at Paramus
11.	Diamond Brook	Enters Passaic River at Fairlawn
12.	Feld's Brook	Enters Saddle River at So. Hackensack
13.	Fleischer Brook	Enters Passaic River at Garfield
14.	Frank Creek	Enters Passaic River at Kearny
15.	Glen Brook	Enters Hohokus Brook at Ridgewood
16.	Goffle Brook	Enters Passaic River at Hawthorne
17.	Harrison Creek	Enters Passaic River at Newark
18.	Hohokus Brook	Enters Saddle River at Fairlawn
19.	Jordan Brook	Enters Saddle River at Fairlawn
20.	Lawyers Ditch	Enters Passaic River at Newark
21.	Little Diamond Brook AKA, Henderson Brook	Enters Passaic River at Fairlawn
22.	Lloyd Brook, AKA Watsessing Brook	Enters Second River at Bloomfield
23.	Lodi Brook	Enters Saddle River at Lodi
24.	Mannings Brook	Enters Sprout Brook at Paramus
25.	Mc Donald Brook	Enters Hughes Lake & Passaic River at Passaic
26.	Millbank Brook	Enters Saddle River at Lodi
27.	Nishayne Brook	Enters Second River at East Orange
28.	Notch Brook	Enters Pearl Brook at Clifton

PASSAIC RIVER TRIBUTARIES (continued)

NO.	NAME OF TRIBUTARY	
29.	Pearl Brook	Enters Third River at Bloomfield
30.	Pehle Brook	Enters Saddle River at Saddle Brook
31.	Pershing Brook	Enters Weasel Brook at Clifton
32.	Pine Brook	Enters Saddle River at Upper Saddle River
33.	Pleasant Brook	Enters Saddle River at Upper Saddle River
34.	Plog Brook	Enters Weasel Brook at Clifton
35.	Plum Creek	Enters Passaic River at Newark
36.	Prospect Brook	Enters Saddle River at Glen Rock
37.	Ramsey Brook	Enters Hohokus Brook at Allendale
38.	Saddle Brook	Enters Saddle River at Hohokus
39.	Saddle River	Enters Passaic River at Garfield-Wallington Line
40.	St. Andrews Brook	Enters Sprout Brook at Paramus
41.	Schroeders Brook	Enters Dahnert's Pond at Garfield
42.	Second River	Enters Passaic River at Newark-Belleville Line
43.	Smokis Vall Brook AKA, Franklin Tpke. Br.	Enters Hohokus Brook at Waldwick
44.	Solomon Brook	Enters Allwood Brook at Clifton
45.	Springer Brook AKA, Nichols Brook	Enters Nichols Pond & Third River at Nutley
46.	Spring Lake Brook	Enters Hohokus Brook at Franklin Lakes
47.	Sprout Brook	Enters Saddle River at Rochelle Park
48.	Styertowne Brook	Enters Allwood Brook at Clifton
49.	Third River	Enters Passaic River at Nutley
50.	Toneys Brook	Enters Second River at Bloomfield
51.	Tunnel Brook	Enters Toneys Brook at Montclair
52.	Valentine Brook	Enters Hohokus Brook at Allendale
53.	Wabash Brook	Enters Passaic River at Clifton (North)
54.	Wagaraw Brook	Enters Passaic River at Hawthorne
55.	Waldwick Brook	Enters Hohokus Brook at Waldwick
56.	Weasel Brook	Enters Passaic River at Passaic
57.	Westerly Brook	Enters Saddle River at Rochelle Park
58.	Wiehlers Brook	Enters Coalberg Brook at Saddle Brook
59.	Wigwam Brook	Enters Second River at Orange
60.	Zabrieskie Brook	Enters Hohokus Brook at Hohokus

SCHEMATIC OF THE PASSAIC RIVER
SHOWING TRIBUTARIES IN THE P.V.S.C. BASIN AREA



Rev. 12/76

SPECIAL REPORT #4
(FROM AUGUST-SEPTEMBER 1976)

PVSC REGULATIONS AND A MODEL SEWER ORDINANCE FOR MUNICIPALITIES DISCHARGING INTO THE PVSC SYSTEM

As everyone knows, the treatment facilities of the PVSC must be updated to comply with the Federal standards established under P.L. 92-500. Over the last several years the Commissioners have taken the necessary action which will result in the construction of new secondary treatment facilities.

The costs for such facilities are very great. Our estimates are in the area of $500,000,000. On those portions of the construction plan which have already been approved, we have been fortunate to obtain commitments of 75% Federal funding. However the Federal funds which are available are subject to grant conditions and included in the grant conditions is the Federal requirement, as a prerequisite to our receiving the Federal funds, that sewer use ordinances must be adopted by all of the municipalities serviced by the PVSC's treatment plant.

Apart from the requirements of the grant conditions, under the provisions of the Federal Water Pollution Control Act of 1972, a new system of discharge permits was initiated. In order to continue the PVSC discharge into New York Harbor, PVSC must comply with the terms of the discharge permit issued by the Federal Government. Included in the conditions of the PVSC discharge permit (NJ0021016) is the requirement for the adoption of sewer use ordinances. It is to be noted that the Federal statute provides that any violation of a discharge permit condition constitutes a civil and criminal offense.

At their board meeting of April 8, 1976, the Passaic Valley Sewerage Commissioners adopted the "Rules and Regulations of the PVSC Concerning Sewer Connection Permits". On April 12, 1976 copies of the Rules and Regulations were sent to each user municipality along with a letter of explanation.

Although the PVSC had, in the past, conducted several conferences with its user municipalities to keep them apprised of the Federal Regulations, another one was held on May 20, 1976 wherein the PVSC, Federal and State regulations were reviewed and they were notified that PVSC would have its staff prepare a model ordinance to assist the municipalities in conforming with PVSC regulations.

We prepared such an ordinance, which incorporated all of the requirements of the United States Environmental Protection Agency as well as the New Jersey Department of Environmental Protection, and submitted it to the United States Environmental Protection Agency as well as to the New Jersey Department of Environmental Protection,which in turn, have commented upon and finally approved it.

Since, not only is PVSC required to make periodic reports to the USEPA of non-compliance with permit conditions, but the flow of Federal Funding for the PVSC project would be interrupted by non-compliance with the grant conditions, PVSC requested that we be informed within 30 days of the name of the individual within each municipality that would act as liaison between that municipality and the PVSC and further, a timetable concerning the adoption of the ordinance.

This, of course, is important since any interruption in the Federal flow of such a large amount of money would require the PVSC to impose the costs directly upon the municipalities, since the PVSC would have construction contracts, which must be paid.

This proposed ordinance, reproduced on the following pages, which works in conjunction with PVSC Rules and Regulations Concerning Sewer Connection Permits (also included for reference), was sent to each user municipality on September 29, 1976 for the purpose of having the ordinance introduced and adopted by them.

It is to be noted that as of December 31, 1976, fifteen of the thirty participating municipalities responded to PVSC indicating the ordinance would be passed. PVSC will follow up on the remaining municipalities for compliance during 1977.

PROPOSED MODEL ORDINANCE FOR MUNICIPALITIES

AN ORDINANCE REGULATING THE USE OF SEWERS AND THE DISPOSAL OF WASTE WATER AND PROVIDING PENALTIES FOR THE VIOLATION THEREOF.

BE IT ORDAINED by the of of County, as follows:

1. Whenever used in the within ordinance, the following terms shall have the following meaning:

a. "Flotable oil" is oil, fat or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. A wastewater shall be considered free of flotable fat if it is properly pretreated and the wastewater does not interfere with the collection system.

b. "Industrial wastes" shall mean the wastewater from industrial processes, trade, or business as distinct from domestic or sanitary wastes.

c. "Industrial Cost Recovery". A charge to industrial users based on its use of PVSC facilities to repay the capital cost outlay of the Federal Share given PVSC under the provisions of applicable Federal law allocable to the treatment of the wastes from the industrial user.

d. "Industrial User", Any non-governmental user of PVSC facilities identified in the Standard Industrial Classification Manual 1972 as amended and supplemented under Divisions A,B,D,E or I. A user may be excluded if it is determined that it introduces primarily segregated sanitary wastes.

e. "Industrial Waste". The liquid waste from an industrial process, as distinct from sanitary waste. All wastes, except storm waters and sanitary wastes.

f. "Major Industry". An industrial user of PVSC facilities that: (a) has a flow of 50,000 gallons or more per average work day; (b) has in its waste, a toxic pollutant in toxic amounts; or, (c) is found by USEPA, NJDEP or PVSC to have significant impact, either singly or in combination with other contributing industries, in the PVSC treatment works or upon the quality of the effluent from the PVSC treatment works.

g. "Natural outlet" shall mean an outlet, including storm sewers and combined sewer overflows, into a watercourse, pond, ditch, lake or other body of surface or groundwater including the Passaic River or any of its tributaries.

h. "NJDEP" New Jersey Department of Environmental Protection.

i. "NPDES" National Pollution Discharge Elimination System.

j. "Person" shall mean any individual, firm, company, society, association, corporation (public or private) or group.

k. "pH". The reciprocal of the logarithm of the hydrogen ion concentration. The concentration is the weight of hydrogen ions, in grams, per liter of solution. Neutral water has a pH value of 7 (a hydrogen concentration of 10^{-7}). Lower pH's are acid, higher pH's are alkaline.

l. "Pretreatment". Treatment given to industrial waste, prior to its discharge, directly or indirectly, to the PVSC facilities, by the industry, in order to remove illegal and/or undesirable constituents or to reduce the strength of the waste.

m. "PVSC" Passaic Valley Sewerage Commissioners

n. "Public Sewer" shall mean a common sewer controlled by a governmental agency, public utility, or the municipality.

o. "Sanitary Sewer", shall mean a sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions together with minor quantities of ground, storm and surface waters that are not admitted intentionally.

p. "Sanitary Waste". Waste derived principally from dwellings, office buildings, and sanitary conveniences, When Segregated from industrial wastes, may come from industrial plants or commercial enterprises.

q. "Sewage" is the spent water of a community. The preferred term is "wastewater.

r. "Sewer" shall mean a pipe or conduit that carries waste water or drainage water.

s. "Slug" shall mean any discharge of water or wastewater which in concentration of any given constituent or in quantity of flow exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration or flows during normal operation.

t. "Storm drain" (sometimes called "storm sewer") shall mean a drain or sewer for conveying water, groundwater, subsurface water, or unpolluted water from any source.

u. "Strength of Waste". A measurement of suspended solids, and/or Biochemical Oxygen Demand and/or Chemical Oxygen Demand, and/or any other parameter determined by PVSC as a fair indicator of the relative use, other than volumetric, of PVSC facilities by industrial wastes.

v. "Suspended Solids" shall mean total suspended matter that either floats on the surface of, of is in suspension in, water, wastewater, or other liquids and that us removable by laboratory filtering as prescribed in "Standard Methods for the Examination of Water and Wastewater" and referred to as nonfilterable residue.

w. "Toxic Wastes in Toxic Amounts" shall be defined by USEPA in 40 CFR 129 (38 F.R. 24342, 9-7-73) and any superceding revisions.

x. "USEPA" United States Environmental Protection Agency

y. "Unpolluted water" is water of quality equal to or better than the effluent criteria in effect or water that would not cause violation of receiving water quality standards and would not be benefited by discharge to the sanitary sewers and wastewater treatment facilities provided.

z. "User Charge". A charge to users consisting of two parts. The first part established by PVSC based on volume and, where applicable, on strength and/or flow rate to pay for the use of the PVSC facilities. The second part established by the municipality to pay for the use of the local sewer system and to pay for administrative of the billing and collection of the funds.

aa. "Wastewater" shall mean the spent water of a community. From the standpoint of source, it may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions, together with any groundwater, surface water, and storm water that may be present.

bb. "Wastewater Facilities" shall mean the structures, equipment, and processes required to collect, carry away, and treat domestic and industrial wastes and dispose of the effluent.

cc. "Wastewater treatment works" shall mean the PVSC facilities.

2. It shall be unlawful to discharge into any natural outlet within the municipality any wastewater or other polluted waters, except where suitable treatment has been provided and where a National Pollution Discharge Elimination System permit has been obtained from the appropriate governmental authority, where required.

3. No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb any public sewer or appurtenance thereof without first obtaining a permit from the appropriate municipal official.

4. Application for sanitary connections for dwellings, groups of dwellings or industrial or commercial establishments with only sanitary waste, shall be made directly to the municipality. A fee shall be paid to the municipality to process the application as otherwise provided by ordinances of the municipality. The governing body of the municipality shall designate some suitable person to maintain a record of the number of sanitary applications and connections that are added and removed from the system and shall make an annual report to the Passaic Valley Sewerage Commissioners no later than February 1 of each year. When a direct connection to a PVSC sewer is requested by the applicant, the request shall first be endorsed with the approval of the governing body of the municipality and then submitted to the PVSC for their action.

5. Each existing industrial user which is presently connected directly or indirectly to the wastewater facilities of the municipality shall make application for a permit no later than 1977, whether the connection be for industrial waste or storm water. Applications for future connections must be made and approved before a certificate of occupancy may be issued. The application shall be made to the municipality by the industry that generates the waste, however, the application must be signed by the owner of the property whereon the industry is located. After approval of the application by the municipality, the application shall be forwarded to PVSC for classification and issuance of the permit by PVSC.

Any existing industrial user which proposes to make any change in its facility or its processing, which significantly affects the quality or the quantity of its discharge into the system, shall submit to the municipality an Industrial Sewer Waste Revision Application showing the contemplated changes. Any new tenant or occupant of an existing industrial user shall submit an Industrial Sewer Waste Revision Application. The application, if approved by the municipality, shall be sent to the PVSC, accompanied by the written approval of the municipality. Existing industrial users that have applied for permits may continue their discharge until their application has been processed by PVSC, except for any dischanges which constitute prohibited waste as otherwise provided in the within ordinance or unless notified by PVSC to cease and desist their discharge. No certificate of occupancy shall be issued for an industrial use until an industrial permit has been issued by the PVSC and no person shall occupy any building or structure for the purpose of a new industrial use until an industrial permit has been issued by the PVSC.

6. Industrial users shall be classified by PVSC as follows:

Category I:

Class I-A permit shall not be issued to an industry defined as a major industry and when issued shall allow the industry to discharge with no modification or pretreatment of flow.

Class I-B permit is one issued to an industry classified as a major industry. This permit shall allow the industry to discharge with no modifications or pretreatment of flow, however, PVSC may require the installation of monitoring equipment.

Category II:

Class II-A permit shall allow an industry to discharge pretreated wastes in accordance with standards established in the permit.

Class II-B permit shall allow an industry to continue to discharge, subject to change of characteristics of its waste by pretreatment or other means in accordance with a schedule as established by the PVSC in the permit.

Category III:

The permit is denied and the discharge of prohibited materials must be halted or modified by a date established by the PVSC and in accordance with conditions contained in the permit denial.

7. The PVSC classification of an application is subject to change by PVSC upon written notification from PVSC to the applicant by certified mail. Any change shall be accompanied by a detailed explanation of the reason for the change.

8. Any industry aggrieved by a permit classification by the PVSC shall have a right to appeal to the PVSC. Such an administrative appeal shall be taken within thirty (30) days of notification by PVSCto the industry of its decision. The notice of appeal shall be delivered personally to the offices of PVSC at 600 Wilson Avenue, Newark, New Jersey or shall be sent by certified mail, return receipt requested. The taking of an appeal shall not stay the provisions of a Class III denial. During the time of appeal, however, the Class II permits shall be stayed, however, the staying shall not release any industry from meeting any requirements of any schedule set by the New Jersey Department of Environmental Protection or the United States Environmental Protection Agency.

9. Upon the filing of an appeal the PVSC shall set the date and time for a hearing before the Commissioners. The applicant shall have the right to present evidence, shall have the right to be represented by counsel and shall have the right of cross examination. Upon the conclusion of the hearing, the Commissioners shall make findings of fact and conclusions.

10. All applications for industrial permits shall be submitted on forms to be supplied by PVSC and shall comply with the instructions on said form.

11. All costs and expenses incidental to the installation and connection of the building sewer shall be borne by the applicant, and the applicant shall indemnify the municipality or PVSC from any loss or damage that may be occasioned by the installation of the building sewer. All sewer connections shall be in accordance with the requirements of the municipality as otherwise provided by ordinance. In the case of the connection into PVSC sewer the connection shall be in accordance with the conditions contained in the approval of the PVSC.

12. No person shall make connection on roof downspouts, foundation drains, areaway drains, or other sources of surface runoff or groundwater to a building sewer or drain, which in turn is connected directly or indirectly to a public sanitary sewer unless approved by the municipality for purpose of disposal of polluted surface drainage.

13. In addition to the application for the permit as hereinabove provided, each industrial user must complete an industrial survey form which will be supplied by PVSC and, from time to time, shall update the form when required by the PVSC.

14. Whenever an industry is classified as a major industry, it shall install an approved, sealed, automatic monitoring system if required by PVSC.

15. No uncontaminated water shall be discharged into the PVSC system except with the prior written consent of the municipality (and PVSC). (There will be two separate provisions, one for municipalities with separate systems and one for municipalities with combined systems.)

16. When pretreatment standards are adopted by the United States Environmental Protection Agency for any given class of industries, then any industry within that class must conform to the United States Environmental Protection Agency timetable for adherence to pretreatment requirements as well as all other applicable requirements promulgated by the United States Environmental Protection Agency in accordance with the provisions of the law. Additionally, such industries shall comply with such more stringent standards necessitated by local conditions as determined from time to time by the PVSC.

17. All industrial users shall provide immediate access to its facilities at any time during normal working hours or at any other time that there is a discharge into the PVSC system or into any waters under the jurisdiction of the PVSC. Access shall be for the purpose of checking the quality of the discharge, taking samples and making tests of the discharge or for the purpose of permitting enforcement of the within ordinance. The access shall be made available to the employees of PVSC, New Jersey Department of Environmental Protection, United States Environmental Agency and/or the municipality All users shall provide access to property and premises for inspection for the purpose of determining if there is any violation of the terms or provisions of the within ordinance.

18. The following wastes are prohibited and may never be discharged into waste water facilities of the municipality and PVSC:

a. Wastes that may create a fire or explosion hazard in the sewer or wastewater facility, such as gasoline, fuel oil, cleaning solvents, etc.

b. Wastes that may impair or cause to impair the hydraulic capacity of the sewer system, such as ashes, sand, metal, precipitates, etc.

c. Wastes that may create a hazard to people, the sewer system, the treatment process, or the receiving water, such as dangerous levels of toxic materials.

d. Wastes at a flow rate which is excessive over a relatively short time period so that there is a treatment process upset and substantial loss of treatment efficiency.

e. Wastes below a pH of 5 unless the line is designed to accommodate such waste.

f. Any discharge of radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by PVSC in compliance with applicable State or Federal Regulations.

19. The following wastes may not be discharged without special permission from the PVSC, upon a determination by the PVSC that the discharge would not be detrimental to the system:

a. Any discharge in excess of 150°F (65°C).

b. Any discharge containing more than 100mg/l of mineral oil or grease.

c. Any discharge containing floatable oil or grease.

d. Any discharge of heavy metals, or any other toxic materials in toxic amounts, which amounts are to be established by PVSC.

e. Any discharge quantities of flow or concentration which shall constitute a "slug".

f. Wastes with pH outside the limits of 5.0 to 9.0.

20. Each major industrial user shall construct or otherwise have available a sampling point for sampling waste water before it enters the municipal sewer system. Other industrial users may be required to construct such sampling point, if ordered so to do by the municipality or the PVSC.

21. No discharge into the wastewater facilities of PVSC shall be permitted from any source which causes physical damage, interferes with the treatment process, or results in a violation of effluent limitations or other conditions contained in the National Pollution Discharge Elimination System Permit to Discharge issued to the PVSC by the United States Environmental Protection Agency.

22. When required by the municipality, USEPA, NJDEP or the PVSC, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable structure together with such necessary meters and other appurtenances to the building sewer to facilitate observation, sampling and measurement of the wastes. Such structure, when required, shall be accessibly and safely located and shall be constructed in accordance with plans approved by the governmental agency requiring it. The structure shall be installed by the applicant at his expense and shall be maintained by him so as to be safe and accessible at all times.

23. All persons subject to the within ordinance shall be required to provide information to the municipality and PVSC as needed to determine compliance with the ordinance. These requirements may include:

1. Wastewaters discharge peak rate and volume over a specified time period.

2. Chemical analyses of wastewaters.

3. Information on raw materials, processes, and products affecting wastewater volume and quality.

4. Quantity and disposition of specific liquid, sludge, oil, solvent or other materials important to sewer use control.

5. A plot plan of sewers of the user's property showing sewer and pretreatment facility location.

6. Details of wastewater pretreatment facilities.

7. Details of systems to prevent and control the losses of materials through spills to the municipal sewer.

24. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in this ordinance shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater," published by the American Public Health Association, or other method or procedure as may be approved by PVSC. Sampling methods, location, times, durations, and frequencies are to be determined on an individual basis subject to the approval of the municipality, and/or PVSC.

25. All users shall be required to comply with the requirement of user charges regulations and industrial costs recovery system regulations to be adopted by the PVSC in accordance with the requirements of the USEPA. The effective date for the implement of user costs regulations and industrial costs recovery system regulations shall be established by resolution of the PVSC. The effective date shall be certified by the PVSC and the said written certification shall be filed in the office of the municipal clerk.

26. No person shall intentionally, break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is part of the waste water facilities.

27. The governing body shall appoint or designate some suitable person to administer the within ordinance.

28. All users of the wastewater facilities shall comply with the requirements of the written rules and regulations of the PVSC which have been adopted and which from time to time shall have been adopted, which regulations shall become effective upon filing of certified copies in the office of the municipal clerk after the effective dates of the within ordinance.

29. Violations of any of the provisions of the within ordinance or any permit issued under the authority of the within ordinance may result in the termination of the permit and/or the termination of the authority to discharge into the system.

30. Any person violating any of the provisions of the within ordinance shall, upon conviction, be subject to a fine not to exceed five hundred dollars ($500.00) and/or imprisonment not to exceed ninety (90) days, or both. Each and every day in which a violation of any provision of this ordinance exists shall constitute a separate violation.

31. If any portion of the within ordinance shall be declared to be unconstitutional, invalid or inoperable, in whole or in part, by a court of competent jurisdiction, the remaining portion not declared to be unconstitutional, invalid or inoperable, shall remain in full force and effect.

32. No ordinance heretofore adopted by the municipality shall be effected by the within ordinance except that if any provisions of any prior ordinance is in conflict with the provisions of the within ordinance, the provisions of the within ordinance shall control.

33. This ordinance shall take effect upon final passage and publication in accordance with the provisions of law.

RULES AND REGULATIONS OF THE PVSC CONCERNING SEWER CONNECTION PERMITS

1) DEFINITIONS

As used in this regulation, the following words and terms shall have the meaning set forth below:

Industrial Cost Recovery - A charge to industrial users based on its use of PVSC facilities to repay the capital cost outlay of the Federal Share given PVSC under P.L. 92-500 allocable to the treatment of the wastes from the industrial user.

Industrial User - Any non-governmental user of PVSC facilities identified in the Standard Industrial Classification Manual 1972 as amended and supplemented under Divisions A, B, D, E, or I. A user may be excluded if it is determined that it introduces primarily segregated sanitary wastes.

Industrial Waste - The liquid waste from an industrial process, as distinct from sanitary waste. All wastes, except storm waters and sanitary wastes.

Major Industry - An industrial user of PVSC facilities that:

(a) has a flow of 50,000 gallons or more per average work day;
(b) has in its waste, a toxic pollutant in toxic amounts; or,
(c) is found by USEPA, NJDEP or PVSC to have significant impact, either singly or in combination with other contributing industries, on the PVSC treatment works or upon the quality of the effluent from the PVSC treatment works.

Municipality - The municipality wherein an industry or other user discharging to PVSC facilities is located.

NJDEP - New Jersey Department of Environmental Protection

NPDES - National Pollution Discharge Elimination System

pH - The reciprocal of the logarithm of the hydrogen ion concentration. The concentration is the weight of hydrogen ions, in grams, per liter of solution. Neutral water has a pH value of 7 (a hydrogen ion concentration of 10^{-7}). Lower pH's are acid, higher pH's are alkaline.

Pretreatment - Treatment given to industrial waste, prior to its discharge to the PVSC facilities, by the industry, in order to remove illegal and/or undesirable constituents or to reduce the strength of the waste.

Property Owner - Owner of the property wherein an industry discharging to the PVSC facilities is located.

PVSC - Passaic Valley Sewerage Commissioners

Sanitary Waste - Waste derived principally from dwellings, office buildings, and sanitary conveniences. When segregated from industrial wastes, may come from industrial plants or commercial enterprises.

Strength of Waste - A measurement of suspended solids, and/or Biochemical Oxygen Demand, and/or Chemical Oxygen Demand, and/or any other parameter determined by PVSC as a fair indicator of the relative use, other than volumetric, of PVSC facilities by industrial wastes.

Toxic Wastes in Toxic Amounts - Defined by USEPA in 40 CFR 129 (38 F.R. 24342, 9-7-73) and any subsequent revisions.

USEPA - United States Environmental Protection Agency

User Charge - A charge to users, established by PVSC, based on volume and, where applicable, on strength and/or flow rate to pay for the use of the PVSC facilities.

2) Any person, corporation or municipality, or other governmental agency desiring to make any sewerage connection or discharge or to continue to discharge sewerage, which includes or consists of industrial waste, into the PVSC treatment facilities, must make application therefor in writing on forms provided by the PVSC. All existing industrial users are required to make such application by June 1, 1977. Any new facilities shall be required to make application prior to the connection.

3) There shall be two major forms of Application:

(a) Sanitary Application - application from dwellings, groups of dwellings, or industrial or commercial establishments with only sanitary waste.

(b) Industrial Application - for industrial waste or storm water from an industrial site.

Sanitary applications shall be made by the owner of the property to the municipality, and no approval by PVSC is necessary unless a direct connection into a PVSC sewer is being requested. However, the municipality shall keep a record of the number of connections that are added and removed and shall make an annual report to the PVSC no later than February 1 of each year.

Industrial applications shall be made by the industry that generates the waste; however, the application must also be signed by the owner of the property wherein the industry is located. The industry shall be responsible for the quality and quantity of the waste, but the industry and owner of the property shall be jointly and severally responsible for any user charges or industrial cost recovery charges, and such charges when not paid may be made a lien against the property, and interest may be charged.

4) Any existing facility which proposes to make any change in its facility or its processing, which significantly affects either the quality or the quantity of its discharge into the sewerage system, shall be required to submit an Industrial Sewer Waste Revision Application showing the changes contemplated. Any new tenant or occupant of an existing facility shall be required to submit an Industrial Sewer Waste Revision Application. The application must be accompanied by a written approval of the particular municipality and owner of the property that are responsible for such sewerage.

5) Existing industries that have applied for permits may continue their discharge until their application has been processed by PVSC, unless in violation of Section 18, "Prohibited Wastes" of these regulations, or unless notified by PVSC to cease and desist their discharge.

6) Applications for Industrial Permits issued by PVSC shall be classified in one of these categories and the applicant and municipality shall be notified as expediently as possible:

Category I:

Class I-A permit which shall not be issued to an industry defined as a major industry is issued allowing industry to continue to discharge with no modification or pretreatment of flow.

Class I-B permit is issued allowing industry to continue to discharge with no modification or pretreatment of flow, but industry is considered a major industry and may be required to install monitoring equipment.

Category II:

Class II-A permit allows industry to continue to discharge pretreated wastes in accordance with standards established in the permit.

Class II-B permit allows industry to continue to discharge subject to change of characteristics of its waste by pretreatment or other means in accordance with a schedule as established or to be established in the permit.

Category III:

Permit denied and the discharge of illegal material must be halted or modified by a date established by PVSC.

PVSC reserves the right to change any Class permit to any other class permit, or to cancel permits upon notification by certified mail giving six months notice and giving the reason for the change.

7) Class I-A, I-B, and II-A permits shall be for an indefinite period of time unless cancelled or modified by PVSC.

8) Class II-B shall be for a period of time specified in the notice of classification requiring the industry to modify its discharge so that a Class II-A permit may be issued.

9) If an industry receives a Class II permit and disagrees with the findings of PVSC, it may appeal to the PVSC and request a hearing. The appeal shall be sent "Certified Mail" to the PVSC, 600 Wilson Avenue, Newark, N. J., 07105, within thirty days of notification by PVSC of the granting of the permit or of any modification of an existing permit. The Permittee shall obtain a return receipt showing date the appeal application was received by PVSC. During the time of appeal, the Class II permit requirements are stayed; however, the staying of such requirements shall not release any industry from the obligation of meeting any requirements and any time schedule set by NJDEP or USEPA.

10) Any appeal request shall be heard by the Commissioners. The findings of the Commissioners may be submitted to USEPA and/or NJDEP and upon approval by either or both shall either be incorporated in a new permit or the existing permit shall be reaffirmed.

11) An application submitted by a corporation must be signed by the principal executive officer of that corporation or by an official of the rank of corporate vice president or above who reports directly to such principal executive officer to make such applications on behalf of the corporation. In the case of a partnership, the application must be signed by a general partner or proprietor. If the owner of the property is a corporation, other than the applicant, then the application must also be signed by the property owner as per the above.

Where an application involves a governmental discharge, the person signing on behalf of a municipal,county or intra-State regional governmental unit; if the applicant is a State or multi-State agency, the application must be signed by that agency's principal executive officer or one who reports directly to him and is authorized to make applications on behalf of the governmental unit. Applications submitted by an agency of the United States should be signed by an official who is authorized to evaluate environmental factors on an agency-wide basis.

12) Each user municipality shall designate an official who shall have the responsibility to supervise and enforce municipal connections and sewer requirements. The name of such designated official shall be submitted to the PVSC by the municipality.

13) In addition to the application, each industrial user must complete an industrial survey form which is supplied by PVSC, unless the industrial user has previously completed and submitted such a form to the PVSC.

14) When the industry is classified as a Major Industry, it will install an approved, sealed, automatic monitoring system if requested to make such installation by PVSC.

15) No uncontaminated water (e.g. cooling water, etc.) shall be discharged into the PVSC system except with the prior written consent of the PVSC.

16) When pretreatment standards are adopted by USEPA for any given class of industries, then that industry must immediately conform to the USEPA timetable for adherence to Federal (and therefore PVSC) pretreatment requirements, and any other applicable requirements promulgated by USEPA in accordance with Section 307 of P.L. 92-500. Additionally, such industries shall comply with any more stringent standards necessitated by local conditions as determined from time to time by the PVSC.

17) A PVSC inspector or authorized employee of PVSC, NJDEP, USEPA, or the municipality, must be given immediate access to any industry at any time during normal working hours or at any other time that an industry is discharging into either the PVSC system or into any of the waters under jurisdiction of the PVSC in order that the inspector may check the quality of the discharge, take samples, tests, and measurements.

18) The following wastes may never be discharged into the PVSC system:

(a) Wastes that may create a fire or explosion hazard in the sewer, or wastewater facility, such as gasoline, fuel oil, cleaning solvents, etc.

(b) Wastes that may impair the hydraulic capacity of the sewer system, such as ashes, sand, metal, etc.

(c) Wastes that may create a hazard to people, the sewer system, the treatment process, or the receiving water, such as dangerous levels of toxic materials.

19) The following wastes may not be discharged without special permission, available on a case by case basis after the applicant proves the discharge not to be detrimental by reason of small volume:

(a) Any discharge in excess of 150°F (65°C).

(b) Any discharge containing more than background level of radioactivity.

(c) Any discharge containing more than 25 mg/l of mineral oil or grease.

(d) Any discharge containing floatable oil or grease.

(e) Any discharge of heavy metals, cyanides or any other toxic materials in toxic amounts, which amounts are to be established by PVSC.

(f) Any discharge quantities of flow or concentration which shall constitute a "slug". A "slug" shall mean a discharge of a rate of flow or concentration of any given constituent which exceeds for any period of 15 minutes more than five times the average daily concentration.

(g) Wastes with pH outside the limits of 5.0 to 9.0.

20) Each major industrial user shall construct or otherwise have available a sampling point for sampling wastewater before it enters the municipal sewer system. Other industrial users may be required to construct such sampling point.

21) No discharge into the treatment facilities of PVSC shall be permitted from any source which causes physical damage, interferes with the treatment process, or results in a violation of effluent limitations or other conditions contained in the National Pollution Discharge Elimination System Permit to Discharge issued to PVSC by the USEPA.

22) Wherein required by USEPA, NJDEP, or the PVSC permit, each industrial user shall monitor its flow and maintain records in accordance with 40 CFR 136.3 or subsequent amendments.

23) If the industrial user violates any of the terms of the permit or regulations, he shall be subject to civil and/or criminal penalties and fines in accordance with judicial procedures as provided for in Section 309 of P.L. 92-500.

24) Violation of any of the terms of the permit or regulations, or of any municipal ordinance, may result in the termination of the permit and/or termination of authorization to discharge into the PVSC system.

25) The within rules and regulations shall be effective August 1, 1976.

INDUSTRIAL SEWER CONNECTION APPLICATION

Name _____

Number & Street _____

Municipality _____

Primary Standard Industrial Classification Code _____

Principal Product _____

Principal Raw Material _____

Flow (Indicate the volume of waste discharged to the PVSC system in thousand gallons per day and whether the discharge is intermittent or continuous) _____

The undersigned being the _____ (owners, lessee, tenant, etc.) of the above property does hereby request a permit to _____ (install, use) an industrial sewer connection to discharge into the _____ (size) inch _____ (municipality, PVSC) sewer located at _____.

The size of the connection is _____ inches.

A plan of the property showing accurately all sewers and drains now existing, together with existing or proposed sampling point, is attached hereto as Exhibit "A".

Details of the connection to the public sewer is shown as Exhibit "B".

A schedule of all process waters and industrial wastes produced or expected to be produced at said property, including a description of the character of each waste, daily volume, maximum rates of discharge, duration of discharge, and a representative analysis is attached as Exhibit "C".

The name and telephone number of the person to call for further details is _____

In consideration of the granting of this permit, the undersigned agrees:

(1) To furnish any additional information relating to the installation or use of the industrial sewer for which this permit is being sought, if requested by PVSC.

(2) To accept and abide by all the rules and regulations of the PVSC and of the approving municipality.

(3) To operate and maintain any waste pretreatment facilities, if such facilities are required by the USEPA, the NJDEP, or the PVSC, in an efficient manner at all times, at no expense to PVSC.

(4) To cooperate at all times with the PVSC and their authorized representatives in their inspection, sampling and studying of the industrial wastes, and any facilities for pretreatment.

(5) If the industry is classified as a major industry (USEPA definition) then, if requested by PVSC, install sampling or monitoring equipment as approved by PVSC.

(6) To pay user charges and industrial cost recovery charges when such charges are promulgated by PVSC.

(7) To notify PVSC immediately in the event of an accident, negligence or other occurrence that occasions a discharge to the sewer of any waste not covered by the permit or of a discharge to any of the streams under the jurisdiction of the PVSC.

(8) To comply with all applicable Federal and State statutes and regulations as well as the terms of any National Pollutant Discharge Elimination System Permit to Discharge issued by the United States Environmental Protection Agency to the PVSC.

DATE: _____ SIGNED: _____
(Applicant)

_____
(Title)

If a corporation, attach resolution giving authority to make application.

The undersigned hereby certifies that it is the owner of the property and agrees that it will be responsible for all user charges and/or industrial cost recovery for any industrial waste emanating from the above property, and failure to pay such costs when levied shall subject the property to a lien on such property not to be lifted until all such costs plus interest shall be paid.

DATE: _____ SIGNED: _____

TITLE: _____

If a corporation, attach resolution giving authority to sign application.

The _____ hereby approves the above application and certifies to PVSC that it will be responsible for payment for the wastewater discharge from the above plant into the PVSC system in accordance with the rules and regulations of the PVSC.
(municipality)

DATE: _____ SIGNED: _____
(Authorized Municipal Official)

TITLE: _____

APPROVED AT PVSC BOARD MEETING OF _____

SIGNED: _____

Clerk of the Passaic Valley Sewerage Commissioners

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
600 Wilson Avenue
Newark, N. J. 07105
(201) 344-1800

Date: .....

Plant Ref. No. .....

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: .....

Address: ..... Zip.....

Person and Title to whom any further inquiries should be directed: .....

.....

Phone No.: .....

Number of Employees: .....

Number of Working Days Per Week: .....

Number of Shifts Per Day: .....

Area of Property: ..... Acres, or ..... Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.: .....

.....

Finished Product(s): .....

Average Production: .....

Raw Materials Used: .....

Brief Description of Operations: .....

.....

.....

.....

.....

Water received in *Gallons* (Note: multiply cu. ft. x 7.48)

Purchased water in 19___ from: .....

1st Quarter .....

2nd Quarter .....

3rd Quarter .....

4th Quarter .....

Total Purchased 19___: .....

Well Water

1st Quarter .....

2nd Quarter .....

3rd Quarter .....

4th Quarter .....

Total well water received in 19___: .....

River Water

1st Quarter .....

2nd Quarter .....

3rd Quarter .....

4th Quarter .....

Total river water taken in 19___: .....

TOTAL OF ALL WATER RECEIVED IN 19___: .....

Water Use in 19___:

Water to Product (include evaporated and lost water): .....

Water to Sanitary Sewer: .....

Water to Storm Sewer, River or Ditch: .....

TOTAL WATER USE IN 19___: .....

Name of River, Stream, or Tributary, and location of storm sewer or ditch outlet to river, stream, or tributary: .....

ANSWER THE FOLLOWING QUESTIONS ONLY IF THE PLANT WASTE INCLUDES WASTE ATTRIBUTABLE TO INDUSTRIAL OPERATIONS

(Note: Analyses should be based on a 24-hour composite sample)

Characteristics of Plant Waste discharged to sanitary or combined sewer, after treatment if any. Indicate units of measure where applicable (e.g. Mg/l).

a) pH: ..... b) Turbidity: .....

c) Temperature: ..... d) Radioactive? Yes ..... No .....

e) Solids Concentration:

1) Total Solids ..... Volatile ..... Mineral .....

2) Suspended Solids ..... Volatile ..... Mineral .....

f) Oil and Grease Concentration:

1) Floatable Oils .....

2) Emulsified Oils .....

g) Chlorides .....

h) Chemical Oxygen Demand (C.O.D.): .....

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): .....

j) Total organic carbon (T.O.C.): .....

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.)

.....

.....

l) Toxic Material—Name and concentration e.g., cyanide salts, etc.): .....

.....

m) Solvents—Name and concentration: .....

.....

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics): .....

.....

o) Date and time span of sample .....

Explain hours, method of discharge of waste to Sanitary Sewer and peak rate of flow, e.g., (continuing for 8 hours per day, 5 days per week at 100 gal./day rate) (batch twice a day for 20 minutes at 100 gal./min.) (Continuous 24 hours steady or with peaks at 2 P.M., peak rate 3 M.G.D.) etc.

.....

.....

.....

Characteristics of Plant Discharge to Storm Sewer, River, or Ditch, after treatment if any. Indicate units of measure where applicable (e.g., Mg/l).

a) pH: ..... b) Turbidity: .....

c) Temperature: ..... d) Radioactive? Yes ..... No .....

e) Solids Concentration:

1) Total Solids ..... Volatile ..... Mineral .....

2) Suspended Solids ..... Volatile ..... Mineral .....

f) Oil and Grease Concentration:

1) Floatable Oils .....

2) Emulsified Oils .....

g) Chlorides .....

h) Chemical Oxygen Demand (C.O.D.): .....

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): .....

j) Total Organic Carbon (T.O.C.): .....

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.):

.....

.....

l) Toxic Material—Name and concentration (e.g., cyanide salts, etc.): .....

.....

m) Solvents—Name and concentration: .....

.....

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics): .....

.....

o) Date and time span of sample: .....

Do you pretreat any waste before discharge? .....

If so, describe process and disposal of residue removed: .....

.....

.....

.....

Certification of Laboratory doing sampling and making analyses shall be given. Procedures shall be those shown in the 13th edition of Standard Methods for the Examination of Water and Wastewater, where applicable. If no procedure is applicable, the laboratory is to describe method and procedure used in analyses.

.....

Signature and title of person preparing report

SPECIAL REPORT #5 (FROM 1975 ANNUAL REPORT - UPDATED)

FRANK CREEK

Tracing oil back from Frank's Creek, Mr. L. Cuccinello on Monday, August 23, 1971, discovered that the culvert under Harrison Avenue, had a sewer inlet which was discharging oil into the creek. Mr. Cuccinello traced this sewer along Harrison Avenue by lifting manhole covers until he came to a street catch basin where oil was entering from a ditch between the properties of Reliable Auto Exchange and T. Rosell and Sons.

Further investigation revealed a large lake of oil behind the properties of Diamond Head Oil Refining Company and Reliable Auto Exchange. Mr. Martin Morrison, owner of Diamond Head, told Mr. Fleming that the condition has existed for at least 35 years. It was formerly an oil dump ground for all the industries in the area, and oil entered Frank's Creek after each rainfall. He stated that it was either City or State property.

On August 23, 1971, Mr. Lubetkin wrote to the Town of Kearny, explaining about the oil pollution and stating that since the oil was reaching Frank's Creek through a Kearny storm drain, it was the responsibility of the Town to halt the pollution. On September 3, Mr. N. Doyle, Town Attorney, replied that the sewer was a county drain and that the oil was on the property of the State of New Jersey (recently acquired for Interstate Highway Route 280). On October 13, Mr. Lubetkin wrote to the N. J. Department of Transportation informing them that an oil pool on the property owned by them was intermittently polluting Frank's Creek and asked what the Department intended to do concerning this matter.

On November 12, 1971, Stuart Kahn, Deputy Attorney General of New Jersey, wrote to the Commissioners' Chief Counsel James Segreto, informing that they are advised that this pollution has its source at Diamond Head Oil Refining Company. He also reported that the matter had been referred to the Department of Environmental Protection for reinvestigation and reconfirmation. He stated that he did not feel it would be proper to give a time schedule as to proceedings. In view of the fact that this was then in the hands of the N. J. Department of Environmental Protection, the PVSC could do nothing further except to report any progress regarding this matter.

Since nothing further was heard from the N.J.D.E.P., Mr. Lubetkin wrote to Mr. D. Clark on January 28, 1972, requesting a report on what was being done concerning the pool of oil. Nothing further was heard from the State, and Mr. Lubetkin again wrote to Mr. D. Clark on March 8, 1972, and requested a report on this matter. On March 14, Mr. Clark replied that the N.J.D.E.P. was

initiating appropriate abatement action against the Diamond Head Oil Company and they were hopeful that this action would result in correction of this problem.

Later in 1972 (exact date not known), a dam was constructed to prevent the oil from overflowing to Frank's Creek. Although the pool of oil was still there and oil undoubtedly slowly leached into the stream, there was no longer a visible violation; however, the matter was still in the hands of the N.J.D.E.P.

Due to another overflow of the oil on February 8, 1973, Mr. Lubetkin again wrote to the N.J.D.E.P. for an up-to-date report on the situation. A copy of a report dated March 1, 1973 signed by Mr. J. Vernon, Field Worker, Environmental Quality, was sent to PVSC. The report summarized the pollution and stated that the Hackensack Meadowlands Commission may be working on surveying the area. Mr. Vernon then concluded by stating he had written a letter (dated 2/24/73) to Diamond Head Oil outlining their violation and giving them four weeks to correct the problem.

Since on April 1, 1974, it was again reported that the oil pond, located behind the Diamond Head Oil Company, overflowed (due to heavy rains at the end of March), as it does after all heavy rains, and the oil went into Harrison Avenue, into a storm sewer, thence to Frank's Creek, Mr. Lubetkin again wrote to the N.J.D.E.P. to find out the status of this situation since last year, when they had put Diamond Head Oil on notice to clean up.

Obviously the oil going over the road to Frank's Creek, besides being polluting, was also a danger to traffic; therefore, in July 1974 someone installed a storm drain under the road so that the oil could flow directly to Frank's Creek.

Mr. Lubetkin wrote to the County of Hudson stating that this would require a NPDES permit, since it contained contaminated water and, in addition, the pollution in the area was under the surveillance of the NJDEP. On July 29, 1974, the County Engineer wrote stating they were aware of the problems, but did not know of any new storm drains being installed. He said they would check and advise PVSC. Nothing was heard on this matter.

On August 22, 1974 Mr. Lubetkin again wrote to the NJDEP pointing out that no response to his request dated May 13, 1974 had been received. Mr. Lubetkin also informed them of the storm drain, enclosing a copy of his letter to the Hudson County Road Department.

At the end of August, PVSC received a copy of a report (dated August 5, 1974) from the Deputy Attorney General, M. Goldfein, stating there had been several meetings in recent months between NJDEP, NJDOT, HMDC (Meadowlands Commission), and the U. S. Coast Guard. I quote from the report as follows to show the problem:

"The 'lake' is on property acquired by DOT for future construction of Rt. 280 through the meadowlands. The Coast Guard has complained that in periods of heavy rain oil is carried into creeks and finds its way into New York Bay. The County of Hudson has complained that oil slicks have resulted on adjacent existing roads. The Bureau of Water Pollution Control's Oil Spills Unit has requested that the oil be removed; D.O.T. has suggested containing the flow of oil (which would be satisfactory to the Coast Guard) or having the oil removed and sprayed on dirt roads within the meadowlands district for dust control by Active Oils Service. The former alternative is unacceptable to the Bureau of Water Pollution Control as it is identical to the remedy offered by Exxon to remove a similar problem at Constable Hook, Bayonne, and rejected by the Bureau (we are about to file suit in that matter, assisted by the Interstate Sanitation Commission); the latter is impossible as the Superior Court has (this week) enjoined Active Oils from any further activities - on the complaint of DEP!!

DOT's position is that there are 'no funds available' to pay for removal of the oil. An effort to obtain funding from the Coast Guard was unsuccessful. There is to be a meeting August 6 with all of the interested parties at which time it is possible that additional proposals will be considered."

On September 13, 1974, PVSC received a letter from the NJDEP stating they had been working closely with NJDOT and the Hackensack Meadowlands Development Commission in order to reach a successful solution to the problem, and that good progress had been made, thus they hoped to be able to inform PVSC in the near future of the provisions of a clean-up program.

Finally a solution was arrived at and was summarized in a letter dated September 22, 1975 from the H.M.D.C. to the Town Attorney of Kearny. The letter summarizes the fact that the "oil lake" is approximately 8 acres, containing 3.3 million gallons of oil and 2.2 million gallons of contaminated water, and that this lake is the source of pollution. The NJDOT engaged the firm of Howard, Needles, Tammen, and Bergendoff to prepare engineering plans for the abatement of this pollution. On May 20, 1975, HNTB completed a draft for this project and submitted it to the HMDC and NJDEP for their review and comment (PVSC was ignored, although we were the ones that first pushed to get this pollution halted). The estimate for the cost of the project is $2.5 million dollars. FHA agreed to provide advance funds in the amount of 90% of the project cost, with NJDOT paying the balance.

However, it was found, after a property survey, that some of the "oil lake" lay outside of the NJDOT right-of-way. One small parcel was owned by Diamond Head Oil and another by the Town of Kearny. The estimated cost of clean up of these two parcels was $6,660. and $5,110. respectively. Diamond Head Oil agreed to reimburse NJDOT for its $6,660. and NJDOT wrote to Kearny to get a committment from them for the $5,110. It was estimated that within two months of Kearny's agreement, bidding could begin on the project, with final completion 9 to 10 months thereafter.

The matter was presented at the Kearny Committee Meeting of September 23, 1975. A review of a summary of the meeting showed, "Councilman Doyle spoke on the Oil Lake Project --- perhaps our share could be paid via State of New Jersey $5,000."

Despite this PVSC was informed by Mr. D. Longstreet of the Oil and Hazardous Materials Program of the NJDEP that work to clean up "Oil Lake" would continue. In a letter dated November 12, 1975, Mr. Longstreet replied to Mr. Lubetkin's request of October 8 for more information stating that the N.J. Department of Transportation was drafting the bid request for the removel of "Oil Lake".

He further stated that the NJDEP was aiding in an advisory capacity and that clean-up would have to be satisfactory to not only the NJDEP, but also to the Hackensack Meadowlands Commission.

The project would be done in several stages, as follows:

1. Removal of the free oil and debris. The free oil may be recycled.

2. Removal and/or treatment of the oil in water layer. Any discharge from this operation will have to meet permit requirements.

3. Removal of the oil sludge and oil saturated soil. It may be feasible to treat these materials and leave them on the site for fill. However, the treatment process had not been approved at this time and may not be feasible.

Although PVSC had originally been informed that bids for this work were to be received in December 1975, this was later deferred to February 19, 1976. PVSC had been informed by the NJDOT that an addendum to the project would be issued to provide:

1. Alternate methods of disposal of oil, water and sludge of the project.

2. Requirements of the Hackensack Meadowlands Development Commission for the contractor to obtain a permit to dispose of sludge at a site within the jurisdiction of the Hackensack Meadowlands Development Commission.

We were also informed that the NJDOT was also investigating:

1. The legal aspect of determining the responsibility of businesses, which had discharged oil into the lake.

2. Whether clean-up work should include the small portion of Oil Lake on property of the Town of Kearny and the Diamond Head Oil Company.

PVSC was also informed by NJDEP that due to changes the February 19, 1976 bid receipt date would be postponed. They stated that the chemical fixation proposed had to be eliminated as an alternate since tests run were not satisfactory.

Because of the potential difficulties associated with the disposal of the oil, a company that wished to bid on the contract (which included construction of an interchange for Route 280, as well as the removal of the oil lake), was required to submit a technical proposal to the office of Solid Waste Administration. Only after the proposal was approved, could a company submit a bid.

Bids were finally opened on December 23, 1976 and the low bidder was a joint venture between Crescent Construction Company, West Caldwell, and Ell-Dorer, Warren.

Also related to this, PVSC was informed that USEPA was bringing suit against Diamond Head Oil for failure to either apply for an NPDES Permit or sign a negative declaration. A meeting was originally scheduled for December 28 at the USEPA offices to review the matter, but was rescheduled for January of 1977.

SPECIAL REPORT #6

ROUND AND ROUND WE WENT - NOWHERE

With all the rules and regulations concerning User Charges, Industrial Cost Recovery, National Pollution Discharge Elimination System, Treatment and Pretreatment Requirements for New Sources and Existing Sources, and Hazardous Materials Handling, the most difficult thing, from a practical point of view, is policing the discharge. In large systems how could we tell when, who, and how much, an industrial firm accidentally or even deliberately discharged into a Publicly Owned Treatment Works or a body of water? When something goes wrong, or a treatment plant is upset because of an illegal discharge, how could we find the culprit? How could we be sure pretreatment objectives were being met? How could we know the strength of industrial wastes so that proper user charges could be made? These were questions which troubled me several years ago.

Obviously, there would be no problem if everybody were honest and if nobody tried to cheat a little (or a lot). Wouldn't it be wonderful if every time an industry had a break, and an illegal discharge was made, they would call us and offer to pay damages? How pleasant it would be if no one tried to illegally get rid of a batch of material through the sewer. Wouldn't it be nice if, when we went to sample an industrial discharge to determine strength, that no temporary modifications in process were made at any plant, thus giving us a false picture as to what is being sent to the POTW? What a pleasant world this would be if we had no thieves, burglars, muggers, and those trying to "beat the system" with dishonest practices. Unfortunately, that is wishful thinking and the only way to control our society is with policemen.

However, as a system (or society) gets larger and more complex, we need, not only more in number, but more sophisticated policemen - that is, unless we can figure an alternate method of control.

About three years ago I conceived of what I call the "Automatic Sampling Policeman". This was a sampler which was to be installed at each major industrial outlet (and even at some other critical points in a system) and which was sealed,and therefore could not be tampered with by industrial personnel without the sewerage authority being aware of such tampering. This sampler would have 24 sample bottles, filling one each hour with a composite of effluent during that hour

by taking 1/4 bottle aliquot each 15 minutes, which is simple enough. The Key was that for the twenty fifth hour sample, the first hour sample would automatically be discarded and the container washed and rinsed to prepare for the 25th sample. This process would continue indefinitely until an inspector arrived and was able to check the last 23 or 24 hour history of an industrial plant's discharge.

With such a "tamper proof" sampler installed in all critical industries and locations, whereby, at all times, proof of the previous 24 hours discharge was available, it becomes more risky for industries to attempt to "sneak" anything illegal into the system. In fact, if the influent of any plant contains an illegal item (such as a toxic material, low pH, etc.), the name of the item could then be put into the plant computer which would then indicate all of the industries in the system that could possibly discharge such an item. Inspectors would then visit these plants and take the samples for laboratory analysis to determine the guilty party. Of course, each industry would be visited periodically at unannounced times to pick up the last 24 hour samples for general checks of B.O.D., C.O.D., etc.

At the various Water Pollution Control Conferences, I discussed my concept with various manufacturers of sampling equipment and almost all said they could manufacture such a piece of equipment if we (PVSC) would pay for the development. This, I felt, was unfair, since after development I felt they would have a piece of hardware that could be used extensively for pollution control (even EPA could use it to check discharges from their permittees), and would therefore have a marketable commodity.

However, at one conference, the Manning Environmental Corporation agreed to use its own funds to design and develop a working prototype of the sampler, if PVSC would give a purchase order for one unit for $1,995. (the limit we could go without advertising). This we agreed to do, and a sampler was developed that clearly demonstrated the feasibility of the concept. The prototype was installed at the PVSC plant and successfully cycled samples for several weeks, but failed under the reliability requirement, and clearly needed additional work.

Meanwhile, I had been told many times at various workshops and conferences I attended, that there was a significant amount of Research, Development and Demonstration Grant funds available for good projects and EPA was looking for "practical" projects which would aid water pollution control work - projects that would get something into the field. Independently, representatives of Manning also heard the same thing and they contacted me offering to work with PVSC and

put up 25% of the funds required, if PVSC could get a grant for the remaining 75%. A demonstration project was conceived, whereby 20 samplers would be designed, constructed and placed in twenty industries with various tests on reliability and effectiveness made over a period of one year. The estimated cost of the project was approximately $240,000., and therefore the grant would be 75%, or $180,000., with Manning putting up the remaining $60,000.

I contacted USEPA on July 12, 1976 (Dr. R. Mason) and it was suggested that in order to save time, PVSC should submit a preliminary proposal. This was done on July 13, 1976, and PVSC received an acknowledgement dated July 23, 1976.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10007

July 23, 1976

Mr. S.A. Lubetkin
Chief Engineer
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07015

Dear Mr. Lubetkin:

Your preliminary proposal, "Sampling Policeman" has been received by this office.

We have forwarded it for technical review within this agency. Upon receipt of this review, we will contact you again on the feasibility of pursuing a research grant in this connection.

We wish to thank you for your interest in our programs and for your concern about our environment.

Sincerely yours,

Arnold Freiberger
Associate Research & Development Representative

Nothing was heard for awhile, when on September 7, 1976, the following letter was sent to PVSC:

Industrial Environmental Research Laboratory
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

September 7, 1976

Seymour A. Lubetkin
Chief Engineer
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, N.J. 07105

Dear Mr. Lubetkin:

This letter is in response to your preliminary proposal concerning a perpetual sampler. This pre-proposal was forwarded to us by Mr. Arnold Freiberger of Region II. The funding ot sampling and testing devices is not within our program area at this time. Our program area is currently emphasizing applicable treatment technology. However, I am referring your preproposal to Mr. Dwight Ballinger of our Environmental Monitoring and Support Laboratory.

In order to give you an idea of our program area and our current R & D efforts, I am enclosing a copy of a breakdown of our laboratory, it's personnel, and their areas of expertise. Thank you for your efforts, and your interest in our program.

Sincerely yours,

David L. Becker

David L. Becker
Chief
Organic Chemicals & Products Branch

Then, on September 16, 1976:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

ENVIRONMENTAL MONITORING AND
SUPPORT LABORATORY - CINCINNATI

September 16, 1976

Mr. S. A. Lubetkin
Chief Engineer
Passiac Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Dear Mr. Lubetkin:

Your informal proposal for a research grant on the perpetual sampler called "Sampling Policeman", which you sent to Dr. Mason, U.S. EPA, New York, has been received by us for review and comment.

We are exploring with the U.S. EPA Office of Enforcement the feasibility of the proposed research and need for the demonstration project. This laboratory has evaluated the Manning S-4000 portable wastewater sampler and the work you have proposed would be an extension of work completed.

We will contact you again after we have explored the agency's need, interest, and funding possibilities.

Sincerely yours,

Dwight G. Ballinger

Dwight G. Ballinger
Director
Environmental Monitoring and Support Laboratory

All quiet for awhile, then on November 23, 1976:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

ENVIRONMENTAL MONITORING AND
SUPPORT LABORATORY - CINCINNATI

November 23, 1976

Mr. Seymour A. Lubetkin
Chief Engineer
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Dear Mr. Lubetkin:

Your preproposal for a grant to develop a perpetual sampler has received some review but we are awaiting additional review. When the reviews have been completed we will again contact you concerning the agency's interest and the possibility of funding.

Sincerely yours,

Joseph B. Anderson

Joseph B. Anderson
Senior Technical Advisor
Environmental Monitoring and Support Laboratory

And finally, on January 24, 1977:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CINCINNATI, OHIO 45268

ENVIRONMENTAL MONITORING AND
SUPPORT LABORATORY - CINCINNATI

January 24, 1977

Mr. Seymour A. Lubetkin
Chief Engineer
Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey 07105

Dear Mr. Lubetkin:

The preproposal concerning the development of a prepetual sampler which you sent to Dr. Robert Mason in the U.S. EPA, Region II Office has been reviewed by this laboratory and other EPA personnel.

Although there is interest and a recognition of potential application for this kind of sampler for monitoring and enforcement, this laboratory cannot place the developmental work on a sufficiently high priority to fund the project. I regret that our funding resources must be limited to a few of the highest priority projects and that your project must be rejected along with other projects having worthy research or developmental aspects.

Your interest and effort in submitting a preproposal on the development and demonstration of new automatic wastewater sampling equipment which could lead to improved waste control and environmental improvement is appreciated.

Sincerely yours,

Dwight G. Ballinger

Dwight G. Ballinger
Director
Environmental Monitoring and Support Laboratory

I guess we will have to develop this ourselves; but we lost one half year, spinning wheels.

SPECIAL REPORT #7

(FROM OCTOBER 1976 REPORT)

FEDERAL FINANCING

When P.L. 92-500 was first enacted (October 1972) it was recognized that some agencies or municipalities might have a problem in financing its share of the environmental construction. Therefore, our legislators wisely put into the Act, Section 12, cited as the "Environmental Financing Act of 1972" which set up an "Environmental Financing Authority". And just as they were wise in recognizing the need they were unwise in that they put the EFA under the general supervision and direction of the Secretary of the Treasury, who had the authority to set rates which he determined as "reasonable rates".

Since the Secretary was apparantly not too sympathetic with municipal borrowing from the new E.F.A., the rates were so high that during the tenure of the Act (until July 1975) not one loan was made by the E.F.A. The interest rates were supposed to be published in the Federal Register from time to time, and maybe they were, but I have not been able to find when nor could I ascertain the official "rate".

When the "Act" died, the fact that no loans were made was given as a "proof" that such loans were not needed.

However, during the "tight" money era, when the New York problem made it difficult to sell municipal bonds at reasonable rates and it looked as though the Environmental Construction was stopping, a section of proposed amendments to 92-500 contained a provision which again set up Federal Environmental Financing. When the House and Senate were unable to get together on the various provisions of HR9560 and S2710 and it was obvious this would die in Committee, at the last minute, S3894 was rushed through, and President Ford signed into law an amendment to the Water Pollution Control Act entitled Section 213 "Loan Guarantees for Construction of Treatment Works".

Under this law any agency that was unable to fund its share of a grant eligible project at a reasonable rate could borrow the money from the Federal Financing Bank.

The Federal Financing Bank had been set up by an act of Congress (P.L. 93-224, 93rd. Congress H.R. 5874) on December 29, 1973 to ensure the coordination of loan programs with the overall economic and fiscal policies of Government, to reduce the costs of federally assisted borrowing in a manner that is least disruptive of private financial markets.

The F.F.B. originally lent funds at 3/8% above the new issue curve of marketable U.S. Treasury Securities, but reduced this in

November 1974 to 1/4%. They made so much money that on Friday, May 23, 1975 the F.F.B. reduced its lending spread to 1/8% above the Treasury Curve. The point I am making is that it does not cost the Government and therefore the taxpayer one cent for this loan . In fact if there was a choice of loaning from the F.F.B or of selling municipal bonds at the same interest rate, it would be more beneficial to the taxpayer for a municipality to sell to the F.F.B. since the money would come from selling U.S. Treasury Securities which are taxable and the income tax on the interest is a source of income to the U.S. Government.

Thus, we can see Congress was wise in using this Department to do the actual loaning of money to needy grantees.

The amendment to the Water Pollution Control required the Administrator of the E.P.A. to guarantee payment to the F.F.B. and that:

No guarnatee, or commitment to make guarantees, may be made pursuant to this section,

(1) Unless the Administrator certifies that the issuing body is unable to obtain on reasonable terms sufficient credit to finance its actual needs without such guarantee.

(2) Unless the Administrator determines that there is a reasonable assurance of repayment of the loan, obligation or participation therein. A determination of whether financing is available at reasonable rates shall be made by the Secretary of the Treasury with relationship to the current average yield on outstanding marketable obligations of municipalities of comparable maturity".

It is to be noted that the above is very similar to the old expired Section 12 of P.L. 92-500 yet with significant difference. In accordance with the requirements of old Section 12, E.P.A. issued regulations 40 CFR 39 on June 14, 1974 for the Environmental Financing which, in my opinion, made it difficult and expensive for a needy grantee to avail itself of that which the Legislature has made available.

Before discussing the details, a basic philosophy should be examined as to whether a department, which may not like a law, may set up rules, which although in conformance with law, are so difficult that, in effect, the intent of Congress is defeated? I think not. The rules and regulations should be simple and logical so that there is sufficient protection but at the same time their application is not onerous nor costly.

The best way to make suggestions for new regulations is to discuss the old ones and their shortcomings.

Paragraphs 39.100, 39.105, 39.105-1, 39.105-2, 39.105-3, and 39.105-4 entitled "Purpose", "Definition", "Authority", "Federal Share","Non-Federal Share", and "Public Body" were routine and caused no problem,however, Paragraph 39.105-5 "Reasonable Terms" was much too loose and caused problems by the arbitrary setting of rates.

I suggest the following:

"Reasonable Terms"

Reasonable terms are a rate less than or equal to the rate established by the Federal Financing Bank for all of its loans, which is based on a set spread above the U.S. Treasury new issue curve in effect on the date the loan consumated. The rate in effect as of this date (established May 23, 1975) is 1/8% above the Treasury Curve. The rate may be changed by the F.F.B. if it changes the rate for all borrowers".

The above will tell a grantee immediately, by obtaining the Treasury Curve (an available document) as to what a reasonable rate is and as to whether it could borrow at this rate or less. In the case where doubt exists, the grantee could receive bids or negotiate for a bond sale and know at the time of receipt of bid whether it should sell or not. Those who have been involved in this type of bond sale know that a decision to sell or not at an offered rate of interest must usually be made within an hour and having such a guide is important so that the public is protected from excess interest cost.

The above is good as it is not subject to "manipulation" since the Treasury Curve is what Treasury Securities are being sold at and the spread involves loans to many other entities such as foreign countries, railroads, banks, FHA, GSA, HEW, TVA, U.S. Postal Service , etc.

It satisfies the requirement of the Act since generally speaking if Treasuries go up so will Municipal bonds, if Treasuries go down, so will Municipal Bonds. Generally speaking municipalities with A ratings or better will be able to sell their bonds "in the market" cheaper than the rate set by F.F.B. and only those grantees with Moody's rates Baa or lower would find the F.F.B. loan to their liking - and this is what we want, to help those grantees that need it, yet not taking off the municipal bond market those grantees with a good enough rating to get better rates than F.F.B. is offering. It is to be noted that municipalities with Moody's A ratings or better can have their bonds purchased by "institutions" while these "institutions" are generally prohibited from buying Baa Bonds or worse, thus by setting the rate as I have recommended we are not taking any "institutional" municipal bonds off the market and we are therefore conforming with that section of the F.F.B. Act which states that borrowing shall be done

"... in a manner that is least disruptive of private financial markets". Furthermore, any rate lower than that recommended by me, would require subsidy to the F.F.B. and possibly require congressional action on each loan.

The next paragraph of the old regulation, par. 39.110, created problems and was costly. The parts (a) (b) and (c) were routine enough and just dealt with applications for funds, but 39.110 (d) was a killer. This part required documentation to prove that the applicant could not get credit or "reasonable terms" and included

(1) The results of a public solicitation for bids to finance, and,

(2) A statement from a municipal bond underwriter of the credit, legal, or other reasons why the obligations could not be sold on reasonable terms.

All I am asking is WHY? If a grantee could obtain financing cheaper than from F.F.B. wouldn't it do it? Isn't just the fact that the grantee desires the F.F.B. loan (which isn't cheap compared to a good municipal bond rate) proof that it needs it? This part of the regulation creates, not only delaying "red tape" but is expensive. It costs from $100,000. to $200,000. or even more to hire financial agents, bond council, print official statements, print prospectives, get Moody's and Standard and Poor's ratings, advertise, etc., in order to satisfy the requirements for public solicitation. This large amount of money must be wasted by those grantees that can least afford it.

Let's put the whole federal loan program in its proper prospective. First we are not talking of enough money to disrupt treasury sales. If we assume $7.5 Billion dollars per year as the appropriation for EPA Grants, this would generate $2.5 Billion in local debts (assuming the present 75% funding) and of this there are many areas where State funding supplements Federal funding and more areas where municipal rates are A or better. Being very conservative the most we could generate would be applications of $1 Billion a year of Baa or worse, grantees, and probably a lot less.

The F.F.B. has more than $25 Billion in loans and outstanding, thus this would only increase their load, by at the most 4% a year and the total F.F.B. demand on Treasury Securities is only a drop in the bucket. Therefore an open policy of using the rate itself as a measure of need, would have no effect on the Treasury Security Market.

Now let us examine how it would help the public. Let us assume a grantee needs $100 million dollars and it has ascertained that, with its credit rating it would have to pay 9% to sell bonds. It

sees that comparable Treasury maturities add up to 7½%. By getting the Federal loan it has not only saved about 1.5 million per year on its debt service (for maybe 25 or 30 years) but the 7½% or $7½ million dollars of interest that the Treasury's will develop will bring in about 3¾ million dollars in income tax the first year, slowly decreasing so that the average (over 25 or 30 years) will be about $2 million per year. Thus it is in all ways to the public benefit to simplify federal environmental borrowing. Certainly we should do as much for our municipalities as we have done for the Governments of China, Liberia, Nicaragua, Bolivia, Jordan, Tunisia, Honduras, Argentina and for Utilities such as Amtrak, U.S. Railway Assn., Empire Telephone Co., Oglethorpe Elec., Chicago Rock Island & Pacific Railroad, Cooperative Power Assoc., Sierra Telephone Co., Hillsboro & Montgomery Telephone Co., Colorado - Ute Electric, Alabama Electric Coop., Central Iowa Power Coop., T.V.A., and others all of which have been recent recipients of F.F.B. loans at the rates of interest as set forth.

I would therefore recommend that Par 39.110 (d) be rewritten expressing the fact that the application for a federal Loan be prima facie proof that the grantee cannot finance its share at a reasonable interest rate.

I have no real objections to the remaining regulations, except for possibly 39.120 (b) (2) which requests "bonding" to protect the guarantee (EPA) and which I do not understand. However, it must be realized that the Administrator must have wide latitude in interpreting intent of regulations because of the difference in legal and financial set-ups of different grantees whereby the literal verbage may not apply in many specific cases.

For"protection" of the guaranteer (EPA) I suggest a "bond reserve fund". This would be a fund set up over a period of five years so that one year's "debt service" is held in a reserve fund to be used in case of default.

To show what I mean let us assume that a grantee borrows $10,000,000. distributed to be paid back 1 to 20 years at an average interest rate of 6%. The grantee debt service would be about $872,000 per year which means that during the first year the grantee would pay about $600,000 in interest and retire $272,000 in bonds. Further, the grantee would be required to take an additional 17% of the debt service or about $148,240 each year for the first five years and put it in a "reserve fund". The $148,240 will become $156,393 after one year (at an estimated conservative 5½% investment rate) when a second $148,240 would be put in. Thus $304,633 would be in the fund at the end of the second year. At the end of the third year, after interest from investments, and a third payment of $148,240, the amount in this fund would be $469,628. Similarly the amount would be $643,697 and $827,340 at the end of the fourth and fifth years respectively and the interest on the $827,340 will bring it up to $872,844 the following year. After the fifth year no

further payments would have to be paid into the Bond Reserve Fund, but, if at any time a default on the repayment of the F.F.B. loan occurred, it would be agreed that payment (principle and interest) would be made from the Bond Reserve Fund. Provisions would be made to reinstitute the fund if depleted below the average one years debt service.

Any interest accumulated after five years could be used by the grantee in any way it desires (reduce operation and maintenance cost, etc.). The Bond Reserve Fund could be used to pay off the last year's debt service.

One other very important point is that, if a grantee arranges temporary financing in order not to hold up a project until it could get permanent financing, the grantee should not be deemed ineligible for Federal Loans. Temporary financing and final financing are not the same. Just the fact that a bank believes that the Federal Government would be the lender of last resort would make even a normally poor risk eligible for temporary financing. This should be encouraged so that we can unjam some of the back-log of work.

I therefore hope that, when the regulations come out, there is a real desire and attempt to activate the newlaw and aid grantees, desirous of improving the environment, but finding themselves behind the pawn ball.

* * * * *

Note: On November 23, 1976, a Notice appeared in the Federal Register, requesting comments on proposed regulations. I sent the above report stating that this report gave the view of the Commissioners on this matter. Subsequently on January 28, 1977, a preliminary draft of regulations to implement Public Law 94-558 was sent, with a request for comments, and advising us of a meeting on February 14, 1977 on this matter. I regret to say that the draft regulations still embodied many of the facets of the old regulation.

SPECIAL REPORT #8A
(FROM JANUARY-FEBRUARY 1976 REPORT - UPDATED)

SLUDGE REPORT

I had previously presented reports giving my opinion on the ocean disposal of sludge wherein I had stated that properly controlled ocean disposal is ecologically better than any alternate we presently have in many congested coastal metropolitan areas (see PVSC 1975 Annual Report,pg.55). In our last annual report I had stated that the Interstate Sanitation Commission had hired consultants to report on the Alternates to the Ocean Disposal of Sludge and that USEPA had announced its intention of moving the existing dumpsite further out to sea. I had also given my opinion as to why I felt this would be ecologically unsound and stated that we were very happy that an envrionmental study was being undertaken by a consultant (Dames and Moore) since we felt that the facts would support our stand.

The Draft Environmental Impact Statement on the Ocean Dumping of Sewage Sludge in the New York Bight was released in February 1976 and I wish to commend Dames and Moore for the excellent coverage given the subject by them. Obviously I cannot do justice to this 341 page report in the few pages I can allot, but the following quote from a part of the report gives the gist of what they believe.

"Concern over the possible effects of dumping greatly increased volumes of sludge at the existing dump site led EPA to consider the need for a new dump site farther out in the Atlantic. The EPA had already stated its intention to completely phase out ocean dumping of sewage sludge by 1981, provided that acceptable land-based disposal methods could be substituted. Still, it was not known whether the existing site could accommodate the sludge to be dumped in the interim. Therefore, in 1974 EPA proposed that a new ocean dump site be designated for use until sludge dumping could be replaced by environmentally, technically, and economically viable land-based disposal methods.

The EPA took this step as a precaution against any possible public health effects that might result from overtaxing the existing dump site. The next step was to determine whether such a precaution was necessary, and if so, whether the proposed action was the best possible way of preventing public health hazards and coastal water quality degradation. To accomplish this, an in-depth evaluation of the proposed action and the alternatives to it was undertaken. The conclusion of this in-depth evaluation was that EPA's proposed action was environmentally unnecessary, and might in fact be more environmentally damaging than taking no action whatsoever. This environmental impact statement (EIS) explains how that conclusion was arrived at.

Based on the information reported in this EIS, EPA has made a preliminary decision not to go ahead with the proposed action. Instead, EPA now recommends: 1) continued use of the existing dump site, 2) a comprehensive monitoring program for the existing dump site, and 3) designation of an alternate dump site that can be used if and when the monitoring program indicates that the existing site cannot safely accommodate any more sewage sludge.

The EPA no longer supports its originally proposed action, that is, designation and immediate use of a new dump site. Nevertheless, this alternative is refered to throughout the EIS as the proposed action. It was only through the reports and studies connected with this EIS that the originally proposed action was discredited."

Thus the conclusion reached by Dames and Moore confirms our opinions as expressed these past several years.

Despite this, USEPA Region II has issued orders that all ocean disposal of sewage sludge shall be halted by December 31, 1981. Despite the fact that we still think the proper disposal of a properly treated sludge to the ocean could be an asset, we, of course, will obey the edict.

We have applied for a grant to determine the alternate which will be most cost effective and ecologically sound for our disposal problem. We feel that there is a good probability that we can manufacture a solid fuel which could be utilized by our power companies and will concentrate on this.

If this fails, as a last resort, we will go to land disposal as a soil conditioner, since we believe incineration in our critical air is not viable.

In October, 1976, the Interstate Sanitation Commission (ISC) issued its final report on "New York - New Jersey Metropolitan Area Sewage Sludge Disposal Management Program". Unfortunately, due to Region II USEPA's position that ocean disposal must be discontinued by the end of 1981, ISC did not, in its report, consider it a viable alternate.

I quote from the report:

> "When this project began, it appeared that there might be some role for ocean disposal, although it was known that the federal laws had been formulated on the basis of an underlying philosophy strongly favoring abandonment of disposal at sea for a variety of substances including sludge. It was also known that considerable scientific and political controversy

existed concerning the relative merits and demerits of the various means of treatment and disposal. The reports obtained by the Commission from its consultants and its own investigations have clarified the nature of the problem. However, it continues to be true that there are important gaps in knowledge concerning the environmental and other effects that will, in the long run, result from pursuit of the several sludge management alternatives.

Decisions taken on matters of basic direction for sludge management in the immediate future will continue to be policy decisions. Under present laws, U. S. EPA and the Congress have the authority to make the fundamental choices and to determine the limits within which the New York-New Jersey Metropolitan Area's governmental units can pursue their responsibilities.

In July, 1976, U.S. EPA in the exercise of its permit authority under the Marine Protection, Sanctuaries and Research Act and the Federal Water Pollution Control Act Amendments of 1972 banned ocean disposal of sludge from the Region's public sewage treatment systems after 1981. This action has reduced the alternatives available for inclusion in the Commission's plan by eliminating ocean disposal which until then was under consideration by the Commission for some possible role in overall regional sludge management.

Thus, the Commission has prepared this report to offer the communities of the Region a plan which would make it possible to meet the requirements of federal law as presently interpreted and administered. Planning of this kind is necessary now because the time until the announced deadline is short."

The Interstate Sanitation Commission recommended composting, followed by land spreading and pyrolysis, followed by carefully controlled disposal of residues in landfills. They recommended regional facilities for the pyrolysis.

It is to be noted that a problem still exists in the disposal of residuals in pyrolysis, and the problem of land disposal is the same problem of sea disposal - what about heavy metals?

Whatever comes of it - we are committed and we will have an alternate chosen by the beginning of 1978 (provided EPA approves our Facilities Planning contracts, so we can get started).

SPECIAL REPORT #8B

(FROM APRIL 1976 REPORT)

THE SOLUTION TO POLLUTION CAN BE DILUTION

When we breathe we exhale carbon dioxide, a waste product of our body and, therefore, a pollutant to us. Fortunately, there is a rapid dilution in the air so that our next breath still contains sufficient oxygen to allow our respiratory process to proceed. If the carbon dioxide from all the animal life were allowed to accumulate in our atmosphere, we would eventually, either mutate to adapt, or our lives would end. Nature, however, has supplied the method of replenishing the oxygen and removing the carbon dioxide from our air by using the energy of the sun on a remarkable substance (chlorophyll) in plant life through a process called photosynthesis. By this process the plant absorbs the carbon dioxide, breaks it down, uses the carbon and expells the oxygen which will later be used by the animals.

Thus a true cycle exists where the waste of one form of life is the necessity of another and plants and animals depend upon each other in a form of group symbiotic relationship. This can only work as long as the dilutions or concentrations of the oxygen-carbon dioxide do not deprive one or the other group of its need.

The same is true of other products of our metabolism. Our wastes are utilized as food by other forms of life being oxydized or reduced, as the case may be,until its form is changed through the same life cycle so that it again becomes our food,usually utilizing the energy of the sun (through the plants).

But again this is accomplished without putrescence by sufficient dilution so that the various forms of life can act upon the material without exhausting normal oxygen sources, thus not requiring anaerobic conditions. In other words, when a waste is diluted enough, it is stabilized in nature without a stink or any other adverse effect.

This is the objective of sewage treatment. We do not oxydize, stabilize or remove all organic matter but we remove enough so that the remainder, when diluted by the water course, can be acted upon, most efficiently, by the biota of the stream. If we have treated sufficiently, the stream remains full of normal flaura and fauna, however, if the food (waste) is not diluted enough, oxygen depletion can occur and an oderous anaerobic condition may prevail.

Thus, it is important to know, for a given stream, what amount of load or Biochemical Oxygen Demand (B.O.D.) can be put into the water. Unfortunately, this varies with the temperature and volume of water in the stream so that in hot dry periods we are more likely to abuse a stream than in wet winter months.

The problem, of course, is economics since the higher the degree the more costly is the treatment. Under certain circumstances it may cost as much or more to remove the 5% from 90 to 95%, than to remove the first 90% of B.O.D. and almost as much to remove the 10% from 80% to 90% as to remove the first 80%. Thus, if 80% treatment is sufficient, it is a waste of not only taxpayers money but of power, fuel, etc., to treat to a higher degree. As a side thought, remember,the utilization of unnecessary power, fuel and chemicals also produce pollution (both air and water) somewhere.

Now our science is not exact enough so that we can treat to the precise figure necessary for any given stream each moment and we must overtreat by some "factor of safety". The problem occurs as to how much "factor of safety" is needed. Some say we should be able to treat to handle the worst situation that occurs once in seven or ten years for a few days. Thus we are asked to spend a large amount of money to build facilities to take care of a minimum average of 7 consecutive days flow in a 10 year period.

If we had no alternate, this expenditure might be excusable, but scientifically provable engineering solutions such as stream reaeration and stream augmentation are not being considered in much of our water management studies,yet by using these during the few hot dry days a decade we can reduce our capital cost considerably and make the available money go further. Yet we are still told by many,who like to spout maxims,that "The solution to pollution is not dilutions" and this use of our streams is not acceptable. Thus the most misused adage of our time,which indicates the orator does not understand the mechanics of our life cycle, is preventing the most efficient application of waste treatment---not overtreating.

Going to the next step, a discharge into a large body of water such as the ocean only needs proper dispersion rather than anything but the most rudimentary treatment. The massive volume of this sea makes it impossible to overload, even if all the wastes from all the people were continuously discharged into it with no treatment. The only result of such discharges, except for possible very local effects, is to add nutrition and thus feed the ocean so as to have it produce greater volumes of fish, etc.

The ridiculousness of overtreatment is further emphasized when we realize that the higher the degree of treatment, the more waste treatment solid residual, commonly called sludge, is produced. The disposal or recycling of this material also illustrates the necessity of proper dilution or dispersion whether we consider land or sea disposal. The fact that organics have for ages been used as fertilizers, and even today, the fertilization of land is considered by many as one of the best uses of sludge, I'm sure comes as no surprise. But what would happen if we put a ton of the material on a few square yards? The obvious answer is destruction of any crop and suffication of aerobic life.

Thus we need a gage for proper dilution and whether our guide is two tons per acre or ten tons per acre, the point is we cannot over fertilize without adverse effects.

The same principle holds for sea application. The residual solids from wastewater treatment can fertilize the sea as well as the land and whether we wish to disperse the material as applied (as they did in Philadelphia) or whether the application is made in a relatively concentrated area letting the ocean disperse it by leaching is a matter of opinion as to what should be accomplished. Either way, a short distance from the point of application, the dilution allows the normal biological actions of nature render the material harmless and starts it recycling in our life cycle.

Thus it can be shown that one of the basic thoughts on treatment is "how much dilution water is available?" and the solution to pollution certainly depends on dilution.

SPECIAL REPORT #8C

(FROM MAY 1976 REPORT)

DON'T "LYNCH" THE WRONG MAN

When I was much younger, I saw a movie that made a tremendous impression on me. I am sure many of you may still see a youthful Henry Fonda on television reruns repeating his part in the impetuous action of hanging several cowboys apparently caught in the act of some heinous crime (I forget the actual problem, probably cattle or horse theft) in an "oldie" entitled "The Ox Bow Incident." The remainder of the movie then shows that the lynch victims were actually innocent and other culprits had committed the crime.

Today we decry lynch law. "Each man is entitled to a fair trial," is a motto emblazoned in our hearts - and we honestly believe it. That is until something hits us personally and we are "sure" of the guilty party. Unfortunately few of us are devoid enough of emotion to not desire a speed-up and preconviction such as in the "give him a fair trial then hang him." type of philosophy.

A heinous crime (or accident) had been committed. Sludge (or garbage, or sewage) had been washed upon many of the beaches of Long Island. Jones Beach, Fire Island, etc., had been closed for swimming during one of the hottest periods of the year and quite naturally those affected were resentful and wished to see those responsible punished and everything possible done to prevent a recurrence.

It is difficult to blame a business man who has lost one of his big weekends or a family which has spent money and time in a shore home only to find their investment dissipating while the use of the beach is curtailed. Naturally those that suffer, angrily lash out at any and all that, in their minds, might be remotely responsible for the situation. Unfortunately the innocent as well as a possible guilty one is caught in the net and actions may be started that are inimical to us in the long run.

First of all, what caused the problem is the major question. To answer this I attempt to use logic in analyzing the facts. This type of thing has not happened before in our history. A combination of circumstances, also unique in our history, of an explosion of two sludge tanks containing 1.3 million gallons of sludge occurred at 8 p.m. on June 2, 1976 at Hewlett Bay together with a set of currents and winds that kept this material from dissipating into the ocean. Another possibility, which could have added to or created the problem, was that of a "short" dump from a barge on its way out to the ocean. If this happened (and

I say if) it should be detectable with proper surveillance by the Coast Guard or with proper checks of logs and the interviewing of crews of all barges in the area. Although I had not personally visited the beach sites, I am told that the material was not sludge but rather screenings which, if so, could narrow the search to specific barges that might carry this type of item.

Either way, we get to the obvious, that it was not caused by the movement of the sludge from the legal disposal area to the beaches. The present area has been used since 1924. In all that period of time this type of thing, if it could happen, would have happened over and over again. We are being lambasted by editorials and critics complaining of the ocean disposal of solid residuals to the point where we are panicking and may be forced into an irrevocable act to the detriment of our environment.

First of all, sludge and the organic parts of sewage do not retain their characteristics after being deposited in the ocean. Like a fertilizer applied to land, a proper disposal will be absorbed into the ecology as nutrients and minerals to be used as food in the normal life cycle. It is not like a piece of driftwood that floats for years. Therefore, as this material moves or leaches from the present disposal site, it changes to a rich fertile mud and is no longer the objectionable material first discharged. Treatment can be applied to the sludge to remove some of the characteristics that some fear. For example, PVSC has plans and specifications and is awaiting EPA approval on a process that among other things will sterilize the sludge by heating it to about 375°F. at a pressure of 800 psi before final disposal. Thus, the fear of the spreading of pathogens would be eliminated.

The point I am making is that before this natural method of recycling the products of our civilization is condemned, tried and found guilty, we should examine the "tyrants" that are available for its replacement.

Incineration in this air polluted metropolitan area is worse than an alternate but is a step backward. We do not have the area for land disposal (as a fertilizer) and the shipping to other areas is not politically expedient since nobody wants the waste of someone else no matter how it is packaged. Also, we should note that land disposal and sea disposal are ecologically similar (although the sea has greater assimilation capacity per square mile) and if we object to (or are for) one method, the same arguments hold for the alternate.

I am often asked why not recycle by manufacturing a product? I am all for this and when a proper product can be produced I will turn on any saleman's charm I may have and put my foot in the door to try to sell such a product. In the meantime the material is produced and there is a limit on how high we can pile and store it.

One bright young lad asked me why couldn't we each be responsible for our own and require each of us visit the treatment plant and take a small prepackaged portion. We could then take it home and get rid of it by flushing it down our toilets.

Meanwhile, unless we discover a better method,the concept of ocean disposal as waste residual management is a proper viable method of recycling with the added quantity of fish in the ocean as the result of such ferilization. In fact, many marine scientists tell us that,properly done,this may very well be the best waste residual management method available. Let us not, like many of our uninformed forefathers, make a sacrifice to appease the gods, because of an accident (no matter how bad) and in particular let us not sacrifice the only practical method we have at present of participating in the life cycle, because of fear,by outlawing ocean disposal.

SPECIAL REPORT #8D
(FROM JUNE 1976 REPORT)

THE "NO RISK" SYNDROME

Can we live with "no risk." Can everything be absolutely safe or shouldn't we recognize that the elimination of risk may cost something and that many times the cost is more than we should pay when, for a lot less, we can live more comfortably with a little risk.

Some examples, which may sound ridiculous, illustrating this point, are:

Example #1:
Studies show that no matter how strictly we inspect installations, we still have fires that start from electric wire failures due to overloads, insulation breakdown, etc. In addition there are deaths and burns due to electric shock and electrocution. These could be eliminated by not letting electric power be brought into the home. Do we wish to pay this price? Obviously not.

Example #2:
We have found that the severity of automobile accidents and the number of auto accident deaths lessened when we dropped speed limits from 60 M.P.H. to 55 M.P.H. By projection we can lower the speed further and further reduce any auto problems. In fact, by going to zero automobile speed, we can entirely eliminate this source of death, accident and pollution. Do we wish to pay the price of not driving? Some may say yes but most of us do not want to give up the convenience of the auto.

These extreme examples illustrate that "no risk" may not be practical nor desirable when all is considered and that taking some risk need not be classified with Evel Knievel's daredevil schemes.

Now, although the extreme examples are obviously undesirable, more subtle situations are being perpetuated upon us by some that do not know, or are not assessing, the cost. Laws and regulations have been passed that are literally "impossible." if not alone, then in combination with others, so that no practical alternate is given to us.

The elimination of ocean disposal of sludge by 1981 is one example of this. Still another example is the regulations on chlorination. A third is the national goal of no discharge of pollutants into navigable waters by 1985.

I have discussed the pros and cons of ocean disposal in many reports (see my annual reports of 1973, 1974 and 1975) so my reasons why I believe the fertilization of the ocean with this material is the best waste residual management available in most metropolitan coastal areas is known. The fact that, if properly applied, it can be as much of an asset to the ocean as in land application and certainly far better than air disposal (incineration) which is a "no-no" in certain air critical areas. I also point out that, in many cases, there are second thoughts about land application with the fear of heavy metal (particularly cadmium) uptake into the food chain. I thought we were making progress in convincing the powers that be when two events occurred, one accidental and one natural that caused a furor amoung the public.

The first was the explosion of the sludge tank at Hewlet Bay and the discharge of 1.3 million gallons of sludge into the bay thence the ocean at Long Island. Large amounts of screenings and artifacts from the sludge washed back onto the beaches because, coincidently, an oceanic flow pattern was toward the beaches thus inhibiting disipation and dispersion by the ocean. I believe that this accident was the cause of the beach befouling since, I am told, the screenings (which normally contain grease balls) in that area are shredded and returned to the sludge for disposal thus that particular sludge would contain a large amount of screenings and it was the screenings and grease balls that made the beaches unpalatable.

The second event was the periodic algae bloom type of occurrance where, when the algae died, it sank to the bottom and in the natural decaying phenomina caused an oxygen deficiency which killed bottom biota over an area along the entire Jersey sea coast. At first, citizens speculated that the sludge was directly responsible, but when it was shown that the decaying matter was algae, then the sludge was held indirectly responsible as it was a "nutrient" which would aid in the growth of algae. It is true sludge is a nutrient and, as such, does aid in the growth of algae, fish, etc., but the amount of nutrient in the vast expanse of even that section of the ocean consisting of the entire Jersey shore (not just locally) could not have significantly affected the coming of the algae bloom. Oceanographers will tell us (if we will listen) that the algae bloom is a natural and regular phenomenon and whether or not the sludge is disposed of to the ocean, in its present volume, will have little affect on the occurance of this cyclic event.

Thus, since vox populi, resurged by those two events and fanned by newspaper speculation, has stated its desire, our officials have responded. We, and all other ocean users in this area, have been directed to cease by 1981. Whether we

can meet this timetable, it is impossible to say, but we can halt ocean disposal. That is if we are willing and able to spend the money, use our resources and accept pollution in other areas.

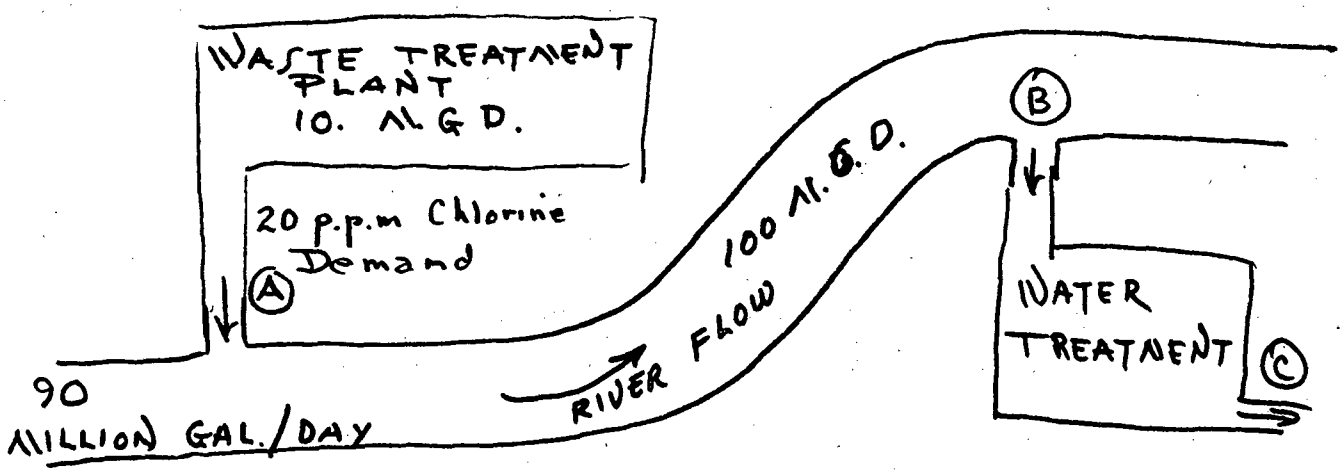
I wonder, when we have halted this method of residual management, who will be blamed for algae bloom, sleeks, accidental beach befoulings, etc. and how we will explain to a choking population why it is better that the exhaust of hundreds of ten ton trucks per day add to our air pollution problem while moving the "fertilizer" to other areas for land disposal than it was before.

Thus we find that we are forbiding many things because of the "no risk" syndrome. Yet much of what we fear can be controlled, although admittedly, not 100%. Some of what we fear is what we do not know, but with "no risk" as a goal we do not wish to take even a small chance. If we had better alternates, I might agree to this philosophy but it is much like telling us not to breathe when air quality is low. We may not want to breathe -- but we had better.

I am all for continuing to look for better ways to do things but I feel we should not attempt to make major changes to eliminate what might be a little risk before we have analyzed the costs and effects on our society.

Chlorination is a different type of idea where we seem to be obsessed with the idea of "disinfection" even where it is not necessary and where the method of accomplishment may do more harm than good. First of all, at present, I agree that chlorination of our drinking water is necessary and proper since we wish to attempt to kill pathogens before ingestion of large amounts of water and at present chlorination appears to be the best method known. We measure the "risk" of the chlorinated organics formed and "disinfection" wins with no contest. But what about the "risk" of the effect of the chlorination on the effluent from a waste treatment plant? What are the pros and cons? We know that at the level of chlorination used, it is ineffective against viruses and we also know that chlorination itself forms chlorinated organics. The amount of such carcenogens found are a function of the amount of chlorine used to meet the "demand". We also know that the "demand" is a function of the amount of some foreign materials in the liquid, such as organics, that are oxydized by the chlorine.

Let us analyze a theoretical situation:



Assume two alternates:

Alternate (1):

Treatment plant(A) chlorinates its effluent and the 20 ppm of chlorine demand, when chlorinated, on the average, forms 1 ppm of chlorinated organics. The 1 ppm of chlorinated organics becomes 0.1 ppm in the river(B) because of the ten to one dilution factor. The 0.1 ppm or 100 ppb formed by the chlorination of the waste treatment plant effluent is taken into the water treatment plant and is not removed in the treatment process. To this is added another small amount of chlorinated organics, say 10 ppb formed by the chlorination of this water. Thus instead of the 10 ppb of chlorinated organics, we may find we are drinking(C) 110 ppb, an increase of manyfold.

Alternate (2):

Treatment plant(A) does not chlorinate. The organics go to the river along with the pathogens and fecal coliform but no chlorinated organics are formed. The input to the water treatment plant(B) may contain fecal coliform and/or pathogen (although in a reduced number due to the natural purifying effect of the river) but, these are killed in the water treatment and final water chlorination. As before, some chlorinated organics are formed at the final disinfection process but since none were formed at the waste treatment plant and therefore little was in the water treatment plant inlet, the quantity to the consumer(C) is significantly less than in Alternate (1).

In the above two alternates, the problem is not "no risk" because each has its own types of "risk" but we must question which is the greater "risk" and at what cost.

In Alternate (1) the drinking water has a greater amount of chlorinated organics. If I am forced to drink this water, I can be very unhappy because of my exposure to a known carcenogen. In Alternate (2) the river downstream of the outfall will be "polluted" according to fecal coliform tests. I know of few problems this creates except bad publicity. Since we are not drinking this water directly, nor eating shellfish from its bed the short life of the pathogen should not affect us adversely. Lest we are concerned about the shellfish situation, quite frankly, even if the discharge were chlorinated it would be unsafe to eat shellfish near an outfall of a waste treatment plant and we are better to be warned by a fecal coliform test than to be fooled by a chlorinated effluent. Experience has shown that bathing and water sports can be carried out safely or with a minimum of risk, therefore, I, for one would much prefer Alternate (2). I believe that if all the waste treatment plants discharging into the Mississippi would stop chlorinating, the drinking water from it would be of higher quality as far as chlorinated organics were concerned and I see no problems because of the fecal coliform except poorer results in some questionably applied tests. An added bonus would be a reduction in my taxes for not having to pay for the wasted chlorine.

The "no risk" syndrome is evident again in all the reports and studies we are being forced to make before we are allowed to build something. We are so afraid of doing something wrong, we appear to be a country of studiers instead of doers. Years ago we we made mistakes, but we accomplished something, and the cost of rectifying such mistakes was nowhere near the cost of the studies and delays we make today.

Somewhere along the line we must get back on the track and start taking some reasonable risks again so that we can progress and get some things accomplished.

SPECIAL REPORT #8E

THE 1976 FISH KILL AND THE DUMP SITE AREA

In the past, extremes in weather, floods and other natural disasters caused people to offer sacrifices to appease the gods and not too long ago even rain dances were performed to end a drought. In our own country, witches were blamed and burned at the stake when fishing ships came home with small catches, but today, we believe we have become more sophisticated and, when problems occur, it is assumed that we make a scientific analysis to determine what is really wrong and attempt to make corrections.

Unfortunately, the latter is only wishful thinking and when we, at PVSC, hear the accusations concerning the recent algae growth in the ocean which caused the massive fish kill, we become not only shocked but surprised because the statements are coming from areas that we feel should know better.

In these days of criticism, where we are concerned about the ecological effects of man's influence on the environment, it has become a fad to strike out against each aspect of man's behavior and argue how that item threatens the world. Whether we cry out against pollution, overfishing or population control, we tend to get so emotional that we may be blinded so we cannot see the real facts. And thus the gravest threat to finding a solution is that, in our hysteria, we falsely lay blame diverting attention from the real causes. The layman must depend on us and news media for information and we must not merely reflect back what uninformed populus believes, although that may be the easy way.

Instead, we should seek the help of the best scientific minds available and by not intimidating our scientists with preconceived politically oriented notions we can obtain the information we need to keep the people informed of the truth, regardless of the popularity of that particular truth. We at PVSC feel the truth is being distorted when people are led to believe that the sludge caused the fish kill in the summer of 1976.

The cycle of life of the sea is like that on the land with the exception that water is not a limiting criteria. Sunlight and nutrients are the two most important elements for plant life (algae or phytoplankton) and of the two most needed nutrients, nitrogen and phosphorus, nitrogen is needed about 15 times that of phosphorus, thus the nitrogen (usually in the form of nitrate or nitrite) is generally the limiting nutrient with phosphorus and other trace nutrients in more supply than could possibly be needed.

The source of the nutrients has been shown by DEP in a table as follows:

ROUGH ESTIMATES OF THE PERCENTAGE OF NITROGEN, PHOSPHORUS AND ORGANIC CARBON FROM MAN'S ACTIVITIES DISCHARGED INTO NEW JERSEY'S COASTAL WATERS

	Nitrogen	Phosphorus	Organic Carbon[a]
Domestic and Industrial Wastes	67%	42%	62%
Sewage Sludge Dumping[b]	7	4	11.5
Dredge Spoil Dumping	11	50	12.5
Other[c]	15	4	13
Total	100%	100%	100%

[a] Measured as biological oxygen demand (BOD).

[b] Assumes 50% of the total nitrogen dumped enters the marine ecosystem.

[c] Crude estimates of loading from miscellaneous sources, including runoff, atmospheric sources, chemical wastes, etc.

Sources: DEP's August 2, 1976 Report on the Fishkill off the New Jersey Coast and DEP's October 7, 1976 Report on Ocean Pollution Causes and Remedies in the Atlantic Coastal Area (and the references contained therein).

This table shows what is added but completely ignores the recycling of nutrients from dead organic material brought back to the surface by upwelling. The literature on the subject attributes anywhere from 60% to 90% and even more of the nutrients utilized by the algae in their growth as coming from decomposition of waste organic matter that has sunk to the ocean floor and is recycled by the upwelling. For example what will happen to the massive amount of nutrients in the algae that died and sank to the floor in June 1976? Even taking only 75% as a rough estimate and applying it to the table above, we get

	Nitrogen	Phosphorus	Organic Carbon
Recycles Nutrients from Upwelling	75%	75%	75%
Domestic & Industrial Waste	16	10	16
Sewage Sludge Dumping	< 2	1	3
Dredge Spoil Dumping	< 3	13	3
Other	4	1	3
Total	100%	100%	100%

In the previous table the "other" includes runoff. We think the DEP estimate for this item is terribly low. We feel that the very heavy rains of 1975 contributed significantly to the nutrients discharged to the ocean which was utilized in the Spring 1976 algae bloom. From this table it can be seen that the nitrogen from the Sewage Sludge is insignificant and is even less so as we consider larger areas where the upwelled nutrients give a larger percentage.

Algal blooms, to one extent or another, are natural phenomena. Each Spring and Fall there is a peak growth caused by a combination of ocean activity and sunlight intensity which brings the nutrients from the bottom of the ocean to the surface,or photic zone, where the sunlight and warm temperature can be the trigger which accelerates growth. (See Appendix B for details)

Since I believe the NJDEP report as to what happened is accurate (although I do not agree as to the cause and corrective action to be taken), I am quoting from their report in order that this report be complete.

"THE FISHKILL OF 1976

Description of the Fishkill

The immediate set of events leading to last summer's fishkill began in February, 1976 with the development of a larger than normal population (a "bloom") of one particular species of marine algae, a dinoflagellate known as Ceratium tripos. Early in the year, the elevated Ceratium levels were distributed throughout the water column. The area having this bloom extended from the Georges Bank off Nova Scotia to south of Cape May County in New Jersey and reached from within a few miles offshore out to the edge of the continental shelf. As spring turned to summer, the Ceratium grew slowly but steadily, and began to accumulate near the thermocline (the zone between warmer surface waters and colder bottom waters that normally develops each summer in the ocean). The relative absence of major storms in early 1976 and the relatively warm, sunny weather probably hastened the development of the thermocline. Ceratium's preference for relatively cool water also contributed to their accumulation near the thermocline where the species could find favorable temperatures and ample sunlight for photosynthesis in addition to abundant nutrients. By early June the densities of Ceratium in the waters off New Jersey had become very high (up to 500 cells/milliliter) and were very strongly localized at the thermocline.

By late June, the massive off-shore algal bloom was raining substantial amounts of cellular material from dead and dying Ceratium down onto the ocean bottom. Bacterial decay of this Ceratium material drastically reduced dissolved oxygen levels on the ocean bottom. Over the July 4th weekend, sport divers visiting ship wrecks observed dead ocean creatures and noticed an unusual blackish or brown layer of material on the ocean bottom. This material was analyzed and found to contain extremely high levels of Ceratium.

As a result, members of many bottom-dwelling marine species (such as lobsters and surf clams) died from a lack of oxygen or related effects, such as the buildup of toxic hydrogen sulfide that can follow oxygen depletion. Other

species (such as hake, fluke and sea bass), at least in part, were able to migrate away from the low oxygen zone. The oxygen levels in surface waters were unaffected by this incident; surface species (such as bluefish, striped bass and menhaden) were not harmed.

Sampling of the ocean bottom by DEP and federal agencies indicated that the zone of worst oxygen depletion (levels below 1 part per million, where 5 parts per million is considered normal) extended from Sandy Hook on the north to Avalon on the south, a distance of about 100 miles; the zone was as much as 40 miles or more wide. Within this area, the zone essentially resembled an ink blot; the map in Appendix A shows the area of oxygen depletion during mid-summer. During early August, the northern areas improved and, in some areas, came back to normal. In the south, low oxygen levels persisted. The zone apparently moved and expanded slowly southward before stopping. Over 3,000 square miles of ocean bottom were affected by this event; this is an area about 40% of the size of the State of New Jersey.

The primary effects off-shore have been on lobsters and surf clams (and thus on the industries that depend on them) and on bottom fishing (which has affected the sport fishing industry). The direct on-shore effects of the off-shore ecological catastrophe have been infrequent and isolated. The so-called "black tide" of decaying algae that washed ashore at a few locations was often alleged to be sewage sludge from the 12 mile site or from coastal discharge pipes. DEP investigations have shown that, while there were isolated bacterial and other problems this summer due to sewage outfalls (pipes discharging treated waste from sewage treatment plants), none of the incidents observed at the Jersey shore was directly caused by the presence on the beaches of sewage sludge itself (either from the sludge dumping site or from treatment plants along the shore). With a few exceptions, the Jersey beaches and the ocean surf remained in excellent condition throughout the duration of these off-shore conditions; the tourism industry did not suffer.

Public concern about the "black tide" has already focused attention on all the sources that contribute to the fertilizing of the ocean and also on other factors that led to the algal bloom. Further attention should be focused on the desirability, feasibility, and costs of any steps that could be taken to minimize the probability of another such event in future years; that is one purpose of this report."

As stated before, algae blooms, natural phenomona, depend upon three items: Nutrients, temperature and sunlight.

As far as the nutrients are concerned, the amount of the nitrogen supplied by the sludge is so minimal as to have had no measureable effect on the bloom. The bloom would have occurred with or without the sludge in the bight. As an analogy,if a match is applied to a half tank full of gasoline,an explosion will occur. If a teaspoonful of gasoline is added before the match is applied, no significant difference in the explosion will be noticed by the unfortunate victim. The nitrogen added by the sludge (the teaspoonful of gasoline) did not have any influence as to whether a bloom would occur nor did it significantly affect the intensity of the bloom.

To scientifically analyse what caused the very intense bloom of 1976, we should analyse each of the individual items:

1) Nutrients: The intense rains of the fall and winter of 1975 (breaking records) caused massive runoffs washing large amounts of nitrogen into the ocean over a large area (from Newfoundland to Cape May). Incidentally, the nutrients which dropped to the bottom will be upwelled to start another bloom in the spring, if the weather is right.

2) Sunlight: There was an unusually high proportion of sunshine in the spring which accelerated the rate of growth of the algae.

3) Temperature: There appeared to be a delay in the production of copepods (animals that eat the algae) this year. This may have been temperature related. Thus the Ceratium tripos (the phytoplankton that grew) was aided in its growth by persistent south and southwest winds that kept a cold cell of water trapped along the coast.

4) Lack of Predators: Normally an algae bloom is eaten by copepods and other fauna and an algae bloom starts the cycle of plant to fish life in the ocean. This year the copepod production was delayed because of climate conditions. In addition, menhadden which, according to a report from the Brookhoven National Laboratory, "...could crop the mid-shelf spring bloom in as short a time as six-seven hours if the fish were present.", were lacking in this area. Possibly overfishing of menhadden was a significant cause of the intensity of the bloom and ultimate effect.

The next question is what can we do about preventing a recurrence. Certainly we cannot pass a law or regulation requiring excessive heavy rains which wash extra nutrients to the ocean to go to the 106-mile area before falling. This would be as useless as requiring the sludge to be dumped at that location. But there are things we might do:

1) We can monitor the mass of chloryphyll so that we can predict, before it happens, the bloom and its effect.

2) We might develop an inhibiting agent for specific "weed" algae that resist consumption by copepods such as the use of copper sulfate to control algae on a reservoir or lake or when a homeowner or farmer uses a selective weed killer on his lawn. (Of course this would have to be studied with all of its ramification before used.) This is easier said than done but at least we should study the possibility.

3) We might "seed" with the proper strains of copepods or fish to eat the algae before they get out of hand.

4) Although we believe the impact of the sludge dumping area on the nutrient is negligible it could be reduced a little more by reducing the distance traversed by the sludge vessel when dumping its load, thus reducing the area of the dump site. This would reduce the surface area of exposed sludge so that nitrogen transfer to the ocean is reduced even further and more nitrogen is captured to remain in the sediment.

I don't say the above is easy, but at least by knowing the problem, a solution could be sought instead of burying our heads in the sand, like an ostrich, and, as suggested by NJDEP, by moving the sludge dump area thinking we have solved the problem.

There are many who feel that although moving the sludge area will not solve the problem, that it won't hurt, so why not do it to appease the public and the voters in the shore communities who have been misled into thinking the sludge is the root of the evil. This is terrible logic and it will hurt and particularly alienate voters in the metropolitan communities. The following are reasons why the dump ground should not be moved:

1) As the Coast Guard has stated, "There is a lot of open sea between the 106-mile site and the coast." it will require between three and four days to make a trip (depending upon the vessel and tug used) and with the variability of weather, I predict there will be a considerable amount of "short" dumps due to change in weather where, for the safety of the equipment and crew, it will be necessary to return to port after going out only part of the distance. There will be an uncontrollable path of sludge from the 12-mile site to the 106-mile site.

2) We defile a new site and cause damage to an extent we will not be able to immediately assess.

3) Lobster fishing is good along the continental shelf 90 to 100 miles offshore. Are we going to ruin this?

4) Quoting from the NOAA response to EPA in the evaluation of an alternate site,
"The sewage sludge dumpsite should not be relocated. The responsible public health agencies still have no evidence that the existing dumpsite poses a threat to the health and well-being of people using the beaches. There is also no evidence of massive migration of dumped sewage sludge toward the beaches of Long Island or New Jersey. Additionally, moving the dumpsite would not result in any significant overall improvement of the water quality of the Bight apex because the effects of the dumped sewage sludge are masked by the larger mass-emission rates of pollutants from shoreline outfalls, river, and embayments."

5) Since sewage agencies are required to cease ocean dumping by December 1981 it seems silly to defile other areas as an interim measure.

6) The cost to be imposed upon municipalities for a useless move, made to appease a section of the public, instead of taking time to explain the truth, is unconscionable. Quoting from the DEP report,
"Personal interview with the management of Modern Transport, Inc., confirmed through independent estimates made by DEP staff. Capital, labor and indirect costs of dumping are a direct function of the total time involved in barging. (Fuel costs are a function of distance.) The average amount of time required for a round trip to the

12-mile site is 24 hours. It is estimated that a round trip to the 106-mile site will require 72 hours - a threefold increase. However, the percent of potential working time that equipment can be utilized for barging to the 106-mile site is estimated to be around 60% compared to 90% of potential working time for the 12 mile site. This difference is attributable to the greater likelihood of bad weather curtailing operations. Thus there is a 30% decrease in equipment utilization time. This will make it at least 4 times as expensive to barge to the 106-mile site as to barge to the 12 mile site. This does not account for fuel cost increases which are proportional to distance and should therefore increase by around 9 fold. Thus the total cost for dumping at the 106-mile site can be conservatively estimated as upwards of fourfold the cost of dumping at the 12 mile site or somewhere in the order of $7.50 per wet ton.

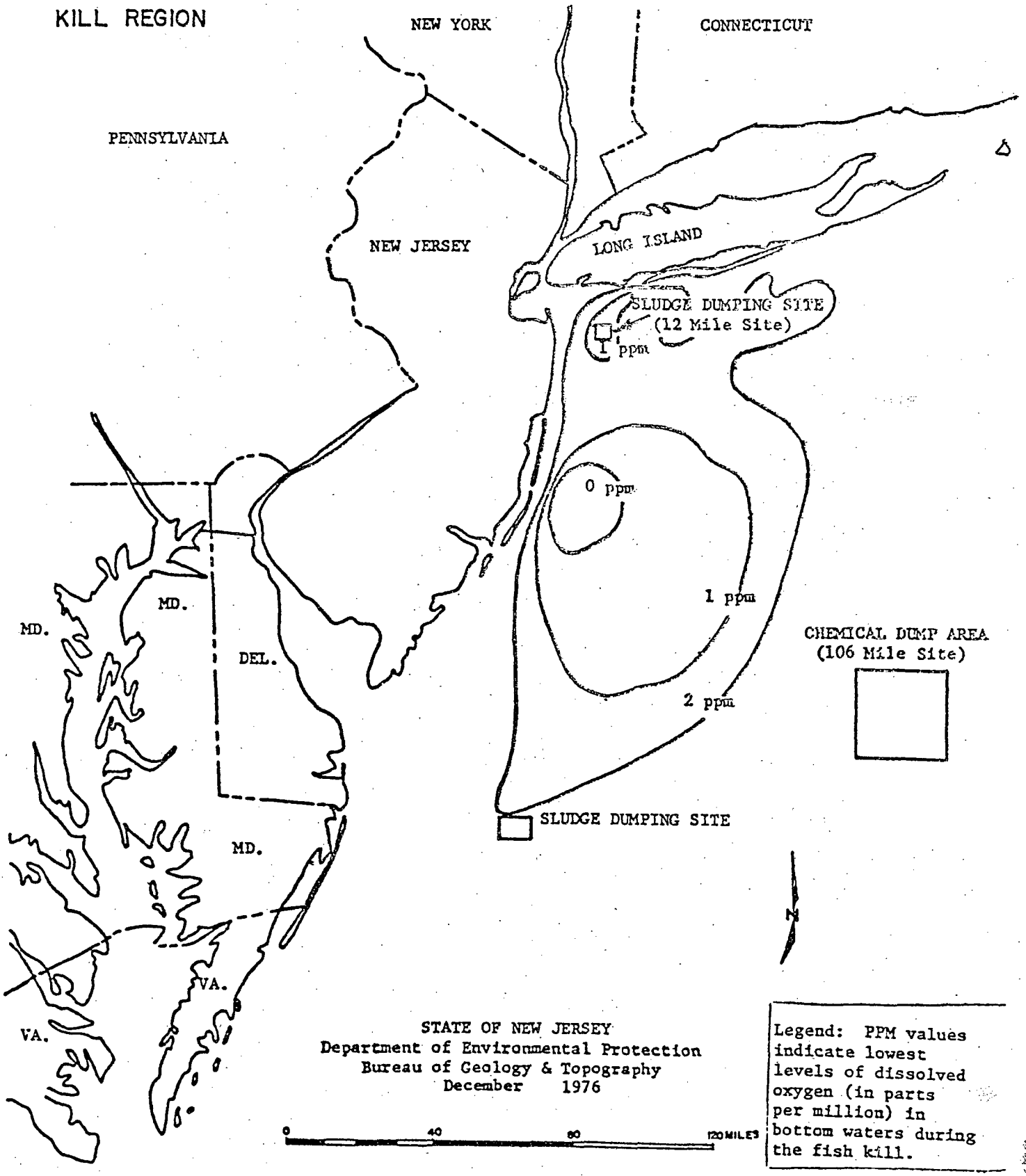
This does not account for possible longer dumping times that may be required at the 106-mile site. Nor does it account for risk factors and costs of accelerated amortization of investment that may increase in barging to the 106-mile site."

Although we agree with most of what is concluded, the arithmatic brings the cost to $\frac{.90}{.60} \times \$1.75 \times 3 = \$7.88$ and when we add for the other factors mentioned we believe the cost is more like $9/wet ton. Thus, for the PVSC sludge (570,000 tons/year) the cost would be $5,130,000, or an increase of $4,560,000. To this must be added the cost of monitoring. PVSC's share of the cost of monitoring at the 12-mile site is estimated at $90,000 per year. Monitoring at the 106-mile site must be at least 4.5 times as expensive. Therefore, the increased cost to move to the 106-mile site is estimated at approximately $4.9 million dollars.

Appendix D is prepared to show the cost to each municipality in the PVSC system due to the movement of the site to the 106-mile point.

MAP OF EXISTING AND PROPOSED DUMPING SITES AND THE FISH KILL REGION

APPENDIX A



Legend: PPM values indicate lowest levels of dissolved oxygen (in parts per million) in bottom waters during the fish kill.

Appendix B

A description of the normal algae cycle.

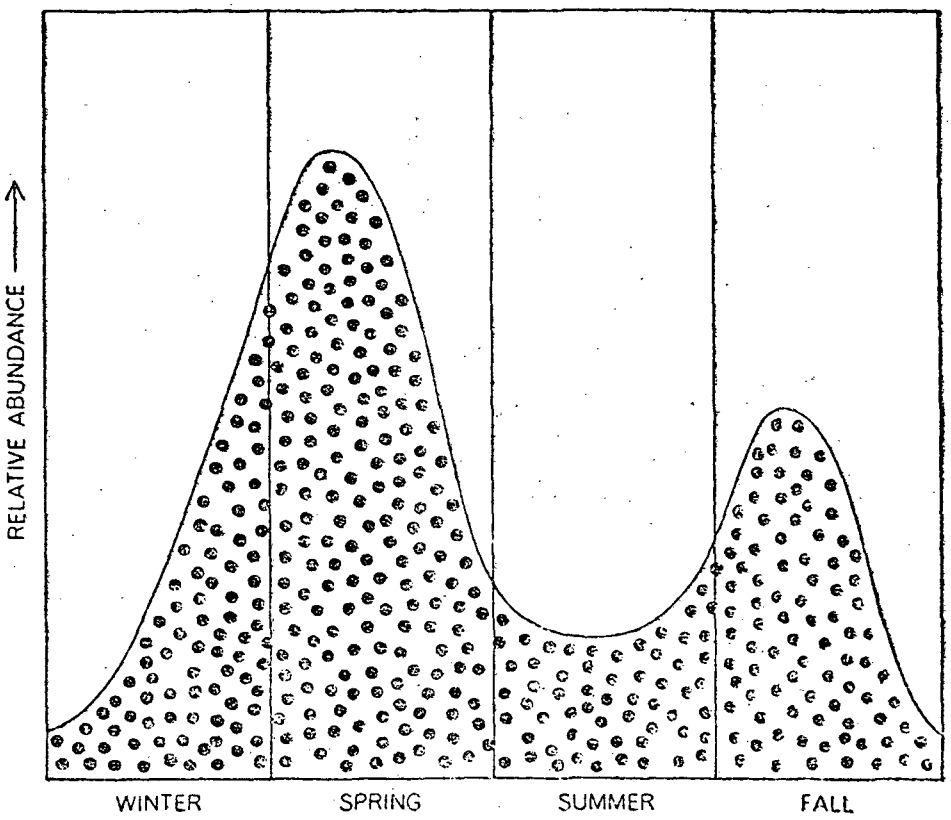
During winter months the amount of nitrogen increases on the surface of the ocean, fed from various sources of which the largest are the upwelling from the bottom from dead and decaying biota by turbulance caused by storms, and washings from the land (which has increased many times with the advent of artifically made fertilizers), however, algae growth then is controlled because of cool temperature and limited sunlight.

However, in Spring (usually April or May) the strong sunlight triggers the growth of phytoplankton in the photic zone and when the supplies of nutrients are adequate, the unicellular plants double their numbers daily, until the sea is covered with them. Usually, in May of each year, the copepods (minute animals that feed on algae) end their winter-long hibernation near the bottom and rise to within 30 feet of the surface to graze on the spring bloom of phytoplankton.

Meanwhile in late spring and summer the rising temperatures of the upper water set up a barrier (known as a thermoclime) which effectively halts further upwelling of nitrogen from the bottom. Thus the combination of copepod grazing and nutrient consumption reduces the growth so that in mid summer, the amount of phytoplankton is reduced (having been eaten or dying and dropping to the bottom). Normally the copepod (zooplankten) which have increased at the expense of the phytoplankton, then become the food of fish and other animals and by autumn when it seems that life would again be scarcer, a second (autumnal) harvest occurs in the sea.

As the temperature drops and autumn winds create turbulance, the thermoclime between the warmer surface water and the cooler bottom breaks down and again the two layers mix and again an upwelling occurs. This upwelling brings fresh supplies of nutrients to the photic zone and another crop of algae, not always the same kind as the first, has a brief period of abundance before winter, with its cooler temperatures and shorter hours of sunlight, sets in. The cycle then repeats with only the intensity of specific species of phytoplankton or zooplankton varying. Little is understood of the mechanisms that give rise to an abundance of particular species under certain conditions. The curve indicates diagrammatically what has been described. (See Appendix C)

Appendix C



SPECIES COMPOSITION AND ABUNDANCE of the phytoplankton varies from season to season, particularly at high latitudes. During the winter the turbulence caused by storms replenishes the supply of nutrients in the surface layers. During this period flagellates (*black dots*) tend to dominate. In early spring the increase in the amount of sunlight reaching the surface stimulates plant growth, and diatoms (*colored dots*) are stimulated to grow. Later in spring grazing by zooplankton and a decrease in the supply of nutrients caused by calmer weather result in a general reduction in the phytoplankton population, which reaches a secondary minimum in midsummer, during which time flagellates again dominate. The increased mixing caused by early autumn storms causes a rise in the supply of nutrients and a corresponding minor surge in the population of diatoms. The decreasing sunlight of late fall and grazing by zooplankton again reduce the general level of the plant population.

From September 1969 "Scientific American"

Appendix D

ADDITIONAL COST TO USERS IN 1978
IF SLUDGE DUMP SITE IS MOVED TO 106 MILE SITE

MUNICIPALITY	1977 BUDGET COST	INCREASE COST TO 106 MILE SLUDGE DUMP SITE
Paterson	$ 1,556,584.48	$ 757,048.53
Haledon	58,595.18	28,497.91
Prospect Park	12,778.23	6,214.72
Hawthorne	100,907.79	49,076.74
Glen Rock	52,896.67	25,726.42
Fair Lawn Ind.	10,639.32	5,174.46
Fair Lawn	112,945.24	54,931.18
Elmwood Park	98,768.87	48,036.47
Marcal Paper Mills, Inc.	102,470.53	49,836.79
Clifton	760,251.29	369,750.01
Passaic	580,202.57	282,182.89
Garfield	498,118.81	242,261.25
Saddle Brook	75,457.31	36,698.84
Lodi	130,189.59	63,318.02
Wallington	50,244.74	24,436.65
East Rutherford	60,726.20	29,534.33
Rutherford	26,693.01	12,982.21
Lyndhurst	119,510.81	58,124.36
Nutley	256,615.51	124,805.56
Belleville	239,708.28	116,582.69
Bloomfield	251,012.84	122,080.69
Glen Ridge	39,933.53	19,421.77
Montclair	217,795.97	105,925.58
Orange	256,809.44	124,899.88
Little Falls	1,650.70	802.82
North Arlington	36,787.73	17,891.80
Kearny	230,805.35	112,252.72
East Newark	33,859.55	16,467.67
Harrison	205,525.13	99,957.63
Newark	3,896,515.33	1,895,079.41
TOTAL	$ 10,075,000.00	$ 4,900,000.00

PART II

VIOLATIONS AND ELIMINATIONS

The following are reports on pollutional discharges into the Passaic River and its tributaries within the PVSC jurisdiction (the watershed from the Great Falls in Paterson to the mouth of the river at Newark Bay), together with reports on how they were eliminated during 1976, and the names of the River Inspectors assigned to investigate the pollution.

Violation and Elimination - Aamco, 225 Crooks Avenue, Clifton, N.J.

August 2, 1976 (R. Goldstein & J. Parr)

On August 2, 1976, after receiving a complaint, Inspectors Goldstein and Parr proceeded to Crooks Avenue, Clifton and observed an oil spill that had occurred at Aamco Transmission Repair. A fire engine from Fire Company Number 3 was hosing down the sidewalk and the street,washing the oil into a catch basin at the intersection with Curio Avenue. This led to the Marselus Ave. Storm Sewer, thence to the Passaic River.

Mr. Leo Tocci, owner of Aamco, stated that a previous owner had left 2 drums of oil in the yard area. The drums ruptured and spilled about 110 gallons of oil onto the ground. Workers contained most of the oil by using a barrier of sand and Speedi-Dry.

Violation & Elimination - Active Oil Service, Inc. 100 Riverside Ave., Newark, N.J. 07104

June 9 - 10, 1976 (F. Cupo)

On June 9, 1976 at 3 p.m., PVSC received a complaint from an anonymous citizen that someone was dumping oil from a 4" hose into a storm drain on Riverside Ave.,Newark which thence discharged into the Passaic River through the Delavan Avenue Storm Sewer. Mr. Cupo immediately proceeded to the area and saw an oil spill on the street and in a catch basin in front of Active Oil Service. He spoke to Mr. George Rohde, President, who explained that the company had just moved to that location and had installed three 30,000 gallon tanks which will be used for reprocessed oil. The new tanks contained water which was pumped out and into the street where it flowed into a nearby catch basin on Riverside Ave. A workman also mistakenly connected the 4" hose to an Active Oil tank truck and allowed an unknown quantity of #6 fuel oil to spill on the ground where it flowed into the catch basin

Violation & Elimination - Active Oil Service (con't.)

and thence into the Passaic River via the Delavan Avenue Storm Sewer. The incoming tide carried the oil upstream approximately 200 yards. Workmen spread Speedy-Dri on the street and pumped the oil out of the catch basin. By 6 p.m. all evidence of the oil was removed from the ground and catch basin but no oil was removed from the River. Mr. Cupo returned the next day (June 10) and observed that the area around the spill was clean. He met with Mr. Rohde and inquired whether he had contacted either USEPA, NJDEP or the U.S. Coast Guard, as required by law, when an oil spill can reach a navigable stream. Mr. Rohde said he had not but he would do so immediately. He was also informed that he may not arbitrarily pump materials into storm sewers but should contact PVSC to determine if the material may be legally discharged.

Violation and Elimination - Active Oil Service, Inc., and Town of Belleville
April 1, 1974 - August 31, 1976 (M. Cordasco)
(Intermittent)

On or about March of 1973, the Tenneco Company closed its plant located at 374 Main Avenue, Belleville. It then sold the premises to Active Oil Service , which demolished buildings, etc., in order to reconstruct a new oil reclaiming plant at that site. While Tenneco occupied the property, since they handled a great deal of dye, and since they had previously polluted at this location, they collected the storm water (with its polluting dyes) and had it discharged into the Belleville sewer and thence to the PVSC trunk sewer. However, after Tenneco moved, the sewer into Belleville was capped and the PVSC inspectors noted that during and after each rain storm, the runoff, highly colored, polluted the river, presumably from ground residue left by the previous owner.

The new owners, Active Oil Service, had told PVSC verbally, that they had, while building their new plant, intended to surface the area and discharge the storm runoff, along with any oil droppings, into a treatment plant, to remove the oil, thence to the PVSC trunk sewer, through the Belleville sewer. This was discussed at a conference held February 7, 1974, and confirmed by a letter from PVSC to them dated February 8, 1974.

In March, however, PVSC inspectors had reported that work in this area had ceased and that the pollution was quite evident.

On April 3, 1974, Mr. Lubetkin wrote to Active Oil Service, informing them of the pollution and requesting information as to when the area would be surfaced and the drainage handled by the treatment plant.

On May 16, 1974, the Engineer of the Town of Belleville wrote to Active Oil Service informing them that they had received no response to a letter that Belleville had sent February 6, 1974, and reminding them that no construction can proceed until plans and specifications are provided pertaining to oil separator equipment. We do not have any knowledge of any reply.

Violation & Elimination - Active Oil Service and Town of Belleville (con't.)

Mr. Lubetkin received a telephone call from Mr. George Rohde, of Active Oil Service, wherein he stated that he was not responsible for the pollution and Belleville could easily halt the pollution by uncapping the line to the Belleville sanitary sewer. He stated that the sewer was capped to save Belleville money by not having to pay for treatment of this water, and City employees had refused suggestions that the sanitary sewer be reopened. He also stated that he could not tell when his work would continue, as he was presently being held up by the Town of Belleville's refusal to issue building permits that were passed by the N.J. Department of Labor, as well as by their own building inspector. Mr. Rohde confirmed the telephone call with a letter dated July 9, 1974. Mr. Simon Liberman, Building Inspector of the Town of Belleville, advised the PVSC that no site plan or building plans for a tank pad had ever been submitted to his department as approved by the New Jersey Department of Labor and Industry.

Since the pollution (which consists of flourescein dye residue in the ground) only occurs during and after rains, and since the material does no harm to the waterway (except asthetically with a green color), PVSC did not take action against the Town of Belleville.

Nothing was done during 1975 since a stalemate apparently developed with Belleville refusing to approve the construction of the proposed facilities of Active Oil.

PVSC was then informed by the Town of Belleville that the land was sold to John V. Rawson, Jr., and Vector Realty Associates T/A R.A.Y. Developers, 2501 Linden Ave., South Plainfield, N.J., in January of 1976. A building permit was issued to erect one food store building on this property. The inspector reported they were demolishing the existing building.

Mr. Lubetkin wrote to R.A.Y. Developers on March 11 and reviewed their responsibility, as owners of the property, to eliminate the pollution. He also directed them to inform the Commissioners as to what steps they planned to take to halt the pollution. On March 23, Mr. Soldo, Belleville Superintendent of Public Works, requested permission to open up the sealed connection to the sanitary sewer in Belleville in order to keep some of the diluted dye residue out of the river. PVSC ran dilution tests on samples taken from the property on March 24 and they were satisfactory.

R.A.Y. Developers were then allowed to open the connection to the Belleville sanitary sewer. Despite this, some slight pollution was still evident. The developer continued to clean the area in preparation for construction. Excavation had started by the end of April 1976 and continued through May. 18,000 cubic yards of contaminated earth were removed by Emil Rodriguez of Jersey City and trucked to the Bergen County dump.

Violation & Elimination - Active Oil Service and Town of Belleville (con't.)

On June 24, 1976, the builder, Craig Industrial Builders, had completed the rerouting of the 48 inch storm sewer line. The remaining construction continued through July.

During August 56,000 cubic yards of clean fill were spread around the construction site as the walls were being erected. By August 31 all evidence of the flourescein dye was gone. Since no dye (or only a very small residual) could enter the Passaic River, this violation was then considered eliminated.

Violation and Elimination - Allied Chemical Company
550 Belmont Avenue, Haledon, N.J. 07508
July 7, 1976 (M. Tomaro & L. Tateo)

At 9:20 a.m. on July 7, 1976, Mr. Robert Iuliucci, Environmental Engineer, Allied Chemical Co., 550 Belmont Ave., Haledon, N.J., notified Mr. Cuccinello of a pollution of Molly Ann Brook which was caused by his company. Inspectors Tomaro and Tateo were directed to investigate and met with Mr. Iuliucci at about 10 a.m. Mr. Iuliucci informed the Inspectors that at 6 a.m. on July 7 an employee inadvertently opened a fill valve too wide from a 5,000 gallon mixing tank to a 250 gallon holding tank. This caused the holding tank to overflow through a vent line onto the roof, where approximately 50 gallons of the material, an aqueous, neutral suspension of red pigment, ran down the roof drains into Molly Ann Brook. According to Mr. Iuliucci workers flushed the area with water to wash the pigment away and opened the flood gates from the company's settling pond to further dilute the pigment. Inspector Tateo took a sample at 10:15 a.m. but the sample was too diluted to indicate the extent of the pollution. The large volume of water had dispersed the material so that the red pigment was now only a pale pink.

Since this pollution was caused by an operator error and could possibly occur again, Mr. D'Ascensio wrote to Allied Chemical on July 21 wherein he requested that they survey the situation to determine if additional means could be employed to prevent a recurrence and to determine if a similar situation existed elsewhere in the plant. On August 17, 1976, Mr. Iuliucci replied that a program of "Environmental Pollution Awareness" would be given to all plant employees during September. In addition, the vent line was repiped to a sanitary sewer drain. Finally, a survey revealed that there were no other areas in the plant where this situation existed.

leak

Violation & Elimination - Allied Textile Printers, Inc.
1 Van Houten St., Paterson, N.J.
June 21- July 8, 1976 (L. Tateo & M. Tomaro)

On May 25,1976, a small leak had developed in a 12-inch Allied Textile industrial waste line which discharges into the Paterson sewer on Van Houten Avenue. A 24-inch horizontal steel clamp was used to stop the leak. On June 24, PVSC received a complaint of a pollution entering the Tail Race thence to the Passaic River in Paterson. Inspector Tateo was directed to investigate and spoke to Mr. J.W. Sherb, Plant Engineer, on June 25.

He found out that the clamp previously installed did not hold and the leak had begun again sometime during the week of June 21. Since this is a force main, the leak only occurred when the plant pumped its waste from a holding pit to the city sanitary line. The volume of the leak was estimated at about ½ gallon per minute. When Inspector Tateo questioned Mr. Sherb concerning what additional action would be taken to eliminate the pollution, Mr. Sherb stated that the plant was scheduled for a 2 week shutdown beginning July 6 and during the shutdown the line would be replaced.

Inspector Tomaro checked the plant on July 9 and observed that the leaky section had been replaced by a 21 foot 6 inch section of new pipe. He was informed that the work was completed July 8, 1976.

Violation & Elimination - American Home Foods,
296 Midland Ave., Saddle Brook, N.J.
July 24-26, 1976 (J. Perrapato & J. Parr)

On Saturday, July 24, 1976, while visiting Dahnert's Pond in Garfield, N.J., Inspector Perrapato observed that a large fish kill had occurred in the Pond. He immediately contacted Mr. Cupo and Inspector Parr for help and together they began to trace a sudsy material in Schroeder's Brook, which fed Dahnert's Pond, upstream into the Township of Saddle Brook. (See also Rocket Car Wash, page 218) Finally, after checking yard areas of several plants, they discovered white puddles near a yard drain at the rear of American Home Foods, 296 Midland Ave., Saddle Brook. A company porter informed them that he had been cleaning floors in the production room after which he had dumped 16-20 gallons of dirty, soapy water into the yard area, subsequently hosing it into the yard drain which feeds Schroeder's Brook. The cleaning solution contained N.D. 150 Water Soluble Industrial Solvent (National Chemsearch Co.). A sample taken from the porter's bucket was highly polluting, (suspended solids: 8590 mg/l; C.O.D.: 9472 mg/l; pH: 9.3). Mr. Cupo instructed the porter not to allow any of this type of material to enter the storm drain. By this time personnel from the County Park Department had opened the bypass that

Violation & Elimination - American Home Foods (con't.)

allowed Schroeder's Brook to flow around Dahnert's Pond. The Diversion was to keep any additional pollutants from causing further damage to the Pond. Mr. Cupo then contacted Mr. Gus Deak, Garfield City Manager, and suggested that the Fire Department open hydrants and attempt to flush the small pond with fresh water. Mr. Deak felt that this could adversely affect the local water pressure so this was not done.

By the morning of July 26th the Brook had cleared and a sample taken at that time showed that the solvent had dissapated. PVSC representatives met with Mr. Gulden, Vice President of American Home Foods and reviewed what had happened over the weekend. He stated that he would take necessary action to insure that this type of occurance did not happen again.

Mr. C. Gulden, Jr., subsequently wrote to PVSC claiming the amount of material spilled was only eight gallons of a biodegradeable material. Mr. Gulden felt that the small volume could not have caused the fish kill. He, however, reiterated that instructions were given to all plant personnel to dispose of cleaning solutions only into the sanitary sewer.

Violation and Elimination - Ashland Chemical Company
400 Doremus Ave., Newark, N.J.
August 18-27, 1976 (J. Colello)

Routine samples taken of Plum Creek in June were unsatisfactory. (See Celanese Chemical Co.,Pg. 134). During July and August several surveys were conducted in an attempt to determine the cause. The task was made difficult because Plum Creek is tidal and the Passaic River diluted the flow at high tide. A further difficulty exists because Plum Creek is piped underground through Ashland Chemical property between Doremus Avenue and the Passaic River.

On August 19, 1976 PVSC received a report of a broken sanitary sewer at Ashland Chemical Company. Inspector Colello and Mr. Cupo proceeded to the plant and met with Mr. Hollinger, Process Engineer, and Mr. Barr, Maintenance Superintendent. They stated that during a cleanout,a break was detected in the sanitary sewer line which apparently allowed the pollution to enter Plum Creek and they were trying to correct the situation. A sample taken from Plum Creek, where it enters the Passaic River, was polluting. Inspector Colello returned to Ashland Chemical on August 20 to check the progress and found that corrective action had not been taken. He took another sample of Plum Creek which was not only polluting but was highly flammable.

Since the pollution of Plum Creek originated from a leak in the sanitary sewer, it was evident that this flammable material had also been discharged to the sanitary sewer. Messrs. Goldberg and Martinelli of PVSC immediately accompanied Inspector Colello back to Ashland Chemcial and met with Mr. Gary Boylan, Materials Manager. Because of the serious nature of this illegal discharge

Violation & Elimination - Ashland Chemical Company (con't.)

Mr. Goldberg advised Mr. Boylan that the discharge of this dangerous material to the sewer had to cease immediately. He then notified both Mr. J. Hoffman of NJDEP, who stated he would notify USEPA, and Mr. Julius Gordon, Senior Inspector, Newark Sewer Department. A letter was hand delivered later that day to Ashland Chemical from Mr. Lubetkin wherein he stated that he was informing the City of Newark to order Ashland Chemical to cease and desist the discharge until they installed suitable pretreatment and protective measures to bring it in conformance with PVSC and City of Newark regulations. He further ordered Ashland Chemical to cease the pollution of the Passaic River and the discharge of the violating material into the PVSC system. Finally, Mr. Lubetkin directed the Company to respond immediately with an abatement schedule.

A conference was held on August 23 to review corrective measures to be taken. We were informed that shortly after the sewer break was discovered, an operator trainee made an improper separation of a water-solvent mixture and caused solvent to be discharged to the sewer. Thus the flammable material flowed both into the sanitary sewer and Plum Creek, via the sewer break. He stated that the plant was shut down as soon as they were notified by PVSC and that the area surrounding the sewer leak was isolated by placing plugs in the line. This action eliminated the pollution of Plum Creek. The break in the sewer was then repaired and dye was introduced into the remaining portions of the sanitary sewer to check for additional leaks.

To prevent a repeat of the discharge of solvents into the plant sanitary sewers, Mr. Hollinger stated that Ashland would connect the outlets of the separator to an intermediate 6000 gallon tank. The contents of the tank will be checked by a supervisor before being discharged to the sanitary sewer. Since the input to the tank will only average 1,100 gallons per day, Mr. Hollinger felt that this would provide an extended period for separation of any solvents which might be improperly drained. Any solvents reaching this tank would then be returned to the separator. Finally, Mr. Hollinger stated that he felt this would provide ample protection and requested permission to resume operations at the plant. Mr. Lubetkin did not object provided the installation was made as promised and requested a letter summarizing what had been discussed. Mr. John Brooks, Plant Manager, forwarded the letter on August 23, which Mr. Lubetkin acknowledged, adding that PVSC may require further refinements in the system such as the installation of alarms. By August 27 Inspector Colello reported that repairs had been completed, eliminating the violation in the sanitary sewer.

accident

Violation & Elimination - Town of Belleville Fire Department
June 8, 1976 (F. Cupo)

At 3 p.m. on June 8, 1976, Mr. Cupo received a call informing him of an accident which resulted in a chemical spill at Mill Street and Main Street, Belleveille, N.J. When he arrived there with Inspector Colello, they observed a truck, rented by Dynamic Chemical Company, Foot and Emmett Streets, Newark, N.J., from Ryder Truck Rental, Elizabeth, turned on its side on top of a private vehicle. Liquid soap, which was being carried by the truck, had spilled on the street approximately 50 feet from a nearby catch basin. The police were on the scene and the firemen who were there hosed down the area, diluting the soap with large amounts of water and washing it into the nearby storm sewer thus polluting Second River. By 3:45 p.m. the area was clean and the pollution halted.

Violation & Elimination - Towns of Belleville and Nutley - Chestnut Street Storm Sewer - Third River
March 2 - 9, 1976 (M. Cordasco)

At 2:30 p.m. on March 2, 1976, Mr. R. Stanley, Nutley Health Inspector, notified PVSC of white foam coming out of a 48" storm sewer on Chestnut St., Nutley and entering Third River. Inspector Cordasco proceeded to the area and found a slight foam in the river which came from this sewer. Mr. Cordasco was unable to locate the primary cause of the pollution, therefore he contacted and made an appointment to meet with Mr. Stanley the following day. On March 3 they met and found the storm sewer running clear, therefore their attempt to locate the source of the pollution failed. Since this storm sewer covered both Nutley and adjoining Belleville, Inspector Cordasco contacted Mr. J. Gilbert, Belleville Sewer Foreman, for additional assistance. A sample taken at 9:15 a.m. on March 4 was polluting but Mr. J. Soldo, Belleville Superintendent of Public Works, reported to Inspector Cordasco that the pollution may have been caused by a blockage in the Belleville Sanitary Sewer located at the City Municipal Stadium on Nolton St., Belleville. He stated the overflow from the sanitary sewer ran into the Chestnut St. Storm Sewer on March 2, 1976. Although the blockage was eliminated at 4:30 p.m. on March 2, it was thought that enough residual material still flowed into the storm sewer to still show the pollution on March 4.

A follow-up sample was taken on March 9, 1976 and was non-polluting based upon this , the pollution was then eliminated and Mr. Lubetkin so informed Mr. Stanley in a letter dated March 25, 1976. However, even though clear and apparently non-polluting since the storm sewer continued to flow during dry weather, PVSC is attempting to locate the sources of the flow.

Violation & Elimination - Towns of Belleville & Nutley
Joralemon Street Storm Sewer, Third River
June 16 - July 27, 1976 (M. Cordasco)

On May 10, 1976, PVSC received a complaint of a gray foam emanating from a 30" storm sewer outlet which empties into Third River at Joralemon Street, Belleville. Inspector Cordasco proceeded to the area and saw Third River was clean when he arrived. He checked the storm sewers on James St., Church St., and Hoover Ave., Bloomfield, looking for the source of a possible pollution. Since he was unable to find anything, he concluded it might have been a one time dump. He continued to frequently check the area but there was no recurrence. A routine sampling survey was conducted on June 16 of Third River from the Garden State Parkway, Bloomfield, through Belleville to Franklin Ave., Nutley.

During this survey, since the 30" storm sewer at Joralemon Street was flowing, it too was sampled. Laboratory results showed a high fecal coliform and high C.O.D. for that sample. Mr. D'Ascensio wrote to Mr. Soldo, Belleville Superintendent of Public Works, on June 21, enclosing the results of the survey and emphasized that the Joralemon Street Storm Sewer was polluting.

As a follow up to the letter, Mr. Cordasco met with Mr. Soldo and Mr. A. Sellari, Nutley Superintendent of Public Works on June 25, at which time Mr. Sellari informed him of a switch failure at a sanitary sewer lift station located on Bloomfield Avenue near the Nutley-Belleville line. The switch operated a pump which lifted the sewage from the wet well through a force main to a higher elevation (Prospect Street) where it then flowed by gravity through the collector system. The switch was connected to a float through a system of linkages which, unfortunately, had a tendency to stick. Thus, instead of a routine automatic operation, occasionally, when the float stuck, the wet well filled up and the sewage overflowed through a 15" line into the storm sewer which emptied into Third River at Joralemon Street. This caused an intermittant pollution of Third River.

Mr. Sellari stated that Nutley, being aware of this problem, had on, June 24, relocated the switch system to improve it by eliminating the complex linkage.

Four samples were taken from the outlet in July and all showed that the line was cleansing itself. By July 27 the coliform level was acceptable.

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Belleville & Nutley - Joralemon Street Storm Sewer (con't.)
September 9 - November 23, 1976 (W. Fiore)
(N. Darmstatter)

Samples taken on September 9 & 16 again showed pollution, indicating that the sanitary sewer lift station located on Bloomfield Avenue,Nutley, which had been the cause of the previous pollution,had probably overflowed again. Since these overflows can occur at odd times without warning PVSC felt that a suitable warning device should be installed at the lift station to warn of a malfunction before an overflow takes place. Mr. D'Ascensio wrote to Mr. Sellari, Nutley Public Works Superintendent, on September 16 and requested that he install such a device, possibly connected to the police department. On September 24 Inspector Fiore was informed by Mr. Sellari that he had contacted two electrical contractors, Allen Bradley and Bernstein Brothers, for information.

On November 23, Inspector Darmstatter inspected the pump station and observed that the backup switch,operated by a water level probe, had already been installed. This switch is connected to the police station via an installed telephone line. If the level in the wet well rises to the level which activates the probe, indicating a malfunction of the pump, an alarm would automatically ring at the police station and transmit a recorded message identifying the source of the problem. An emergency crew would then be dispatched to the pump station to correct the problem. Although this violation is being eliminated, this outlet will continue to be monitored.

Violation and Elimination - Blickman Health Industries
20-21 Wagarow Road, Fair Lawn, N.J.
October 18-26, 1976 (W. Fiore)

On October 18, 1976, while inspecting the collecting pit at the Fair Lawn Industries complex, Inspector Fiore noticed a white liquid discharging from their storm sewer and entering the Passaic River. He contacted Mr. Victor Nemity, Fair Lawn Industries Engineer and was advised that there was no company with a known industrial connection into the storm sewer. Both men went to the storm sewer outlet but the pollution was not visible when they arrived.

On October 19, Mr. Cuccinello and Inspector Fiore returned and began lifting manhole covers in order to try to trace the source of the pollution. When they checked Blickman Health Industries, they observed a machine that was used to wash and polish stainless steel parts. Under normal operations the dirty wash solution from the machine drained to a tray below where it was then pumped into a 4" roof drain connection which led to the storm drain leading to the Passaic River.

Mr. Fred Heisman, Company President, stated that this had been done without his knowledge. He was ordered to discontinue the intermittant pollution at once. Inspector Fiore returned to the plant on October 26 and checked that the drain from the tray was connected to the sanitary sewer.

Violation & Elimination - Bright Star Industries, 600 Getty Avenue, Clifton, N.J.
December 16, 1975 - July 3, 1976 (J. Parr)

On November 7, 1975, PVSC received notification from NJDEP of their intention to certify the discharges from Bright Star Industries, Clifton, N.J., in conjunction with their application for a NPDES Permit. Since PVSC routinely investigates these discharges in order to comment on them if necessary, Inspector Parr was directed to check and sample the outfalls that discharge to Wabash Brook, a tributary of the Passaic River. On December 16 a sample was taken from the two lines. Outfall #001 was non-polluting, but Outfall #002 (boiler blowdown) had a pH of 11.6 and a C.O.D. of 284 mg/l. On December 19, Mr. D'Ascensio called Mr. E. Weber, Vice President, Operations, who stated that his Maintenance Superintendent, Mr. V. Baksa, had the latest information but was on vacation until January 5, 1976.

Since the volume of the discharge from the outlet was very small (68 gal/day), the matter was held in abeyance until the return of Mr. Baksa and an appointment was made to meet on January 5, 1976. Meanwhile USEPA was requested to send a copy of the Draft Permit to PVSC.

On January 23, 1976, Mr. E. M. Weber, Vice President of Operations, wrote to PVSC informing that they intended to connect Discharge #002 into the sanitary sewer. He stated that they intended to complete this by July 23, 1976. Although this was a small pollution, PVSC felt that this could be done sooner and had so informed Bright Star.

On March 12, Mr. Weber wrote to Mr. D'Ascensio and included copies of letters from Bright Star to USEPA and NJDEP. In these letters Mr. Weber admitted that a third occasional discharge had been discovered by PVSC and that Bright Star felt the best solution was to eliminate all three outlets to Wabash Brook. They expected to have this work completed by May 24, 1976.

On April 29, 1976, Mr. Weber, Vice President of Bright Star informed USEPA and PVSC that as of April 15, the steam condensate had been routed back to the boiler room, eliminating outlet 001; the boiler blowdown had been rerouted into the municipal sewer with outlet 002 capped; and the third discharge had been sealed and is no longer discharging into Wabash Brook, thus eliminating all three outlets.

However, the boiler blowdown tank developed a leak which permitted about 5 to 7 gallons of liquid per day to seep into the ground and presumably into Wabash Brook. Since the tank was buried and, due to its age and condition, would be difficult to repair, it would be replaced. They estimated the installation of the new tank to be about June 21.

Violation & Elimination - Bright Star Industries (con't.)

On June 28 Mr. Weber wrote to Mr. D'Ascensio and enclosed a copy of a letter to USEPA wherein he stated that the vendor did not deliver the new tank on time and they were unable to meet the June 21 date for elimination of the pollution. He stated that Bright Star anticipated that the tank would be installed in early July.

Inspector Parr inspected the plant on July 3 and observed that the new tank was being installed. By 3:45 p.m. the installation was complete and the violation was eliminated.

Violation and Elimination - Brookdale Beverage Co., Inc., 955 Bloomfield Ave., Clifton, N.J.
February 20 - March 12, 1976 (R. Goldstein)
(J. Parr)

On Saturday, February 21, 1976, a call was received from the Nutley Police Department about red dye in Nichols Pond. Operator Terry Richardson called Supt. L. Cuccinello at 12:30 p.m., who contacted Inspector R. Goldstein, and both proceeded to Nichols Pond, which they found to be bright red. They traced this upstream to Allwood Brook and a culvert coming from under Allwood Road, Clifton. They continued to trace the red color past a series of catch basins to the rear of the Brookdale Beverage Co. They went to the office and found the building closed. They then went to an outlet store of this company at Industrial West and the manager called the owner, Mr. Joseph Pieretti, Sr., via the telephone, who stated he was bedridden and requested the inspectors come to his house.

At the home, his son, Mr. J. Pieretti, Jr., explained that they had a laboratory on the second floor with a large stainless steel sink which leads to a floor drain, thence to a 6-inch pipe that empties into the yard catch basin thence to Allwood Brook. When recent Federal Regulations banned the use of Red Dye #2, he told an employee to get rid of what he claimed was about two pounds of Red Dye #2 in powder form. The employee at 5:30 p.m. on Friday, February 20, 1976, mixed the powder with 25 gallons of water and dumped it into the laboratory sink, and it went to the storm sewer system. They were informed that this was illegal, and, in fact, the connection from inside the building to the storm sewer was illegal, as it could carry polluting material and thus required a NPDES Permit which they didn't have.

Supt. Cuccinello, Inspector Goldstein and Inspector Parr went to the plant on Monday, February 23, and they were shown by the General Manager, Frank Liscio, Jr., the sink and the piping to the storm sewer. Supt. Cuccinello directed Brookdale Beverage Co. to reconnect the system into the sanitary sewer.

Violation & Elimination - Brookdale Beverage Co. (con't.)

Meanwhile, the heavy rains of Saturday evening and Sunday washed the dye from Nichols Pond, and by Monday, February 23, the brook was running clear.

On Tuesday, Inspector Parr met with Mr. R. Lorenz, Clifton City Engineer, and Mr. B. Richardson, Plumbing Inspector, and informed them of the problem. On Thursday, the sink drain had been disconnected.

At the request of PVSC, a new sanitary sewer connection was made which now takes the drainage from the laboratory system and the remaining areas from within the building and the outlet to the storm sewer has been sealed. This was completed on March 12 and checked by Inspector Parr the same day. This was also confirmed in a letter from Brookdale dated March 15, 1976.

Violation and Elimination - Celanese Chemical Company, 354 Doremus Avenue, Newark, N.J.
May 12-25, 1976 (J. McLaughlin)

While making routine inspections along Doremus Avenue on May 13, 1976, Inspector McLaughlin was informed by Mr. Edward Gold, Celanese Chemical Company's Terminal Manager, that an overflow of methanol from one of their storage tanks occurred at about 5 p.m.on May 12, 1976. Mr. Gold reported that the tank (with a capacity of 840,000 gal.) had a residue of 7,000 gallons and was being filled from a tanker located at a pier on the Passaic River. The pumping procedure began about 6 a.m. on May 12 and should have taken about 10 to 12 hours. The tank on the ship was reported to contain only 750,000 gallons which would have easily fit into the storage tank. However, an investigation after the spill revealed that the tank actually contained about 900,000 gallons. The methanol was pumped into the storage tank which overflowed into a channel formed by a metal wall which encircled the tank. Then, as this safety channel filled up, methanol began to pour from a loose access manhole cover in the outer wall. The pumping was stopped and valves were set to redistribute the methanol as quickly as possible. Despite this corrective action, Mr. John Forstchen, Terminal Engineer, later reported to Mr. D'Ascensio and Inspector McLaughlin on May 13, about 70,000 gallons was spilled onto the ground. Approximately 25,000 gallons of the 70,000 gallons was pumped from the large puddles on the ground into tanks for recovery. Most of the remaining methanol ran into nearby Plum Creek and was washed down with hoses to reduce the fire hazard. Celanese notified EPA and the Coast Guard of the spill but PVSC was not contacted. Inspector McLaughlin took samples at two locations in Plum Creek. Both were polluting. Subsequent samples indicated a pollution still existed but was most likely not due to the methanol. Thus the violation caused by Celanese was eliminated as of May 25, while another pollution was investigated (see Ashland Chemical Co., pg. 127).

Violation & Elimination - City of Clifton -
McDonald Brook at Scoles Avenue (J. Parr)
October 1, 1975 - November 18, 1976 (T. Costello)

Routine samples taken of Hughes Lake on October 1 and 7, 1975 indicated a slight sanitary discharge was polluting Hughes Lake. Inspector Parr, with the aid of Chief River Inspector Cuccinello and Inspector Goldstein, checked the Brighton Road, Dawson Avenue, Scoles Avenue, Shafto Street, Rowland Avenue, Katherine Avenue, and Bloomfield Avenue storm sewers in Clifton, as well as the Katherine Avenue and Broadway storm sewers in Passaic, taking samples at various locations in order to find the source of the pollution. The personnel of the cities of Clifton and Passaic cooperated in the search, and as of October 31, 1975, the source was believed to be in the vicinity of Scoles Avenue, Clifton. PVSC had difficulty in locating the pollution because it was comparatively slight, with the only method of detection being a slightly high count of fecal coliform.

Samples taken on Ellsworth Street, Martin Avenue and Major Street in November 1975 apparently localized the source of the pollution to a five or six home area in the vicinity of Martin Avenue - Major Street intersection. Mr. Ed Bush of the Clifton Sewer Department stated that a new storm sewer had been installed along Martin Avenue within the last year and construction could have damaged the sanitary sewer laterals or trunk allowing seepage into the storm sewer. The City of Clifton, assisted by PVSC, then conducted a house-by-house dye test. On December 5, Mr. Bush notified Inspector Parr that the work crew had detected a positive dye test from a house at 174 Martin Avenue and that the crew would complete the field work the following week.

On December 9, Mr. D'Ascensio spoke to Mr. Bush and Mr. Bush stated that, weather permitting, the City of Clifton would open the street on December 10 in order to repair the leak. Inspector Parr visited the site early on December 10 and found that the Sewer Department had already moved equipment into the area. The street was opened up at 2:10 p.m. that afternoon. When Inspector Parr returned on December 11, he observed that a hole had been located in the 4-inch sanitary lateral coming from the house approximately 8 feet from the curb toward the center of the street. The storm sewer passed under the sanitary line at this point and the hole in the sanitary line apparently allowed waste to seep through the ground into the storm sewer which feeds *McDonald Brook (and thence Hughes Lake)*.

The work crew placed a 4 inch, full circle "Adams" repair clamp over the hole, and then poured concrete around the clamp and under the pipe for support. The crew returned on December 12, backfilled the hole, and flushed the storm sewer with a fire hose.

Violation & Elimination - City of Clifton, McDonald Brook at Scoles Avenue(con't.)

Samples taken on December 15 and 16, 1975 showed a greatly reduced fecal coliform count on Martin Avenue. The flow was found to be intermittent and very small in quantity at this time and sampling the flow on Martin Avenue was extremely difficult. Another sample was taken on December 29 at the Martin Avenue, Ellsworth Street intersection, and although it still showed colifrom count, the flow was so slight that the results were suspect.

Even though one sanitary sewer leak was eliminated on Martin Avenue, tests of Hughes Lake showed that other violations were still present.

Samples taken in January, February and March 1976 indicated that there were at least two additional sources where the pollution was entering from the Scoles Avenue-Ellsworth Street area. PVSC helped to localize the points of infiltration by sampling the sewer at selected manholes, however, it was felt it would be necessary for the City of Clifton to dye test other homes in the area in order to pinpoint the pollution source.

PVSC conducted an extensive survey of McDonald Brook on April 8, 1976 by taking 11 samples from various areas. The results indicated that the pollution originated from an area on Scoles Avenue, west of Ellsworth Street, and north of Scoles Avenue, along Ellsworth Street. This information was conveyed to Mr. Lorenz, Assistant Municipal Engineer, and Mr. Palfreyman, Health Officer, at a meeting on April 12. At that time Mr. Lorenz was advised to dye test the individual homes in the area.

When nothing further was heard from Clifton, Mr. D'Ascensio wrote to Mr. Lorenz on June 8, 1976 and requested a status report. Mr. Lorenz replied on June 10 and stated that the sewer department had arranged to begin dye testing homes on that day. On June 17, PVSC received a complaint of green dye in Hughes Lake. When Inspectors Parr and Costello investigated, they did not find any evidence of dye in the lake, but when they located Mr. Bush, they were told that the Clifton Sewer Department had been dye testing homes all that week. He stated further that the sewer department had located three broken laterals, one at 170 Martin Avenue, one at 156 Martin Avenue and one at 165 Martin Avenue whereby the dye had entered the storm sewer. On June 28 the sewer department began repairing the broken laterals. The work on 156 Martin Avenue was completed on June 30 and repair work at 166 Martin Avenue was completed on July 2, 1976. On October 29 Mr. Bush informed Inspector Costello that the broken lateral at 170 Martin Avenue had been repaired and the excavation was being backfilled.

McDonald Brook was sampled and analyzed on November 4, 9, and 18, 1976 with acceptable results, thus eliminating the violation.

Violation & Elimination - City of Clifton, Pearl Brook
June 21-22, 1976 (J. Parr)

At 3:50 p.m. on June 21, 1976 PVSC received an anonymous telephone call reporting sewage entering Pearl Brook, a tributary of the Passaic River, in the vicinity of Charles St., Clifton. Inspector Parr proceeded to the area and spoke to several residents who were unable to help. Proceeding 100 feet upstream of MacLean Road he observed a traprock wall being constructed along the east bank of Pearl Brook and noted that the water in this area was very muddy. When he noticed bubbles coming from the bottom of the brook about 4 feet from the east bank, he notified the Clifton emergency night crew. Mr. Ed Bush, Clifton Sewer Department Foreman, arrived and informed Inspector Parr that a 10-inch Clifton sanitary sewer line crossed Pearl Brook at this point and the person who was constructing the wall may have damaged the line. He stated finally that the sewer crew would return on June 22 to make repairs.

When Inspector Parr returned to the area with Inspector Costello at9:20 a.m. on June 22 to sample Pearl Brook, the Clifton sewer crew and Mr. Bush were on the scene starting excavation in order to expose the sewer. Mr. Norman Wilson, the gentleman who was constructing the wall and admitted accidentally breaking the sewer, sand bagged the area around the break and replaced a broken section of pipe. Mr. Bush told Inspector Parr that repairs were completed on 6 p.m. of June 22, 1976. This was confirmed by a visual inspection on June 23. A sample taken on June 30 also confirmed that the pollution had been eliminated.

Violation & Elimination - City of Clifton, Randolph Avenue Storm Sewer
July 19-21, 1976 (T. Costello)

On July 19, 1976 (approximately 8 a.m.) Mr. Cuccinello observed evidence of a sanitary sewer overflow at the intersection of Lexington Ave. and Randolph Ave. which flowed into the catch basin thence to the Passaic River via an 18 inch storm sewer on Randloph Ave. Inspector Costello contacted Mr. Ed Bush, Foreman, Clifton Sewer Department, and was told that the Clifton sewer crew had discovered the overflow at 7:30 a.m. that morning. Mr. Bush, by entering a nearby manhole at the intersection of Route 46 Lexington Avenue and Randolph Avenue, observed that a section of the 8" sanitary line had collapsed, blocking the line and causing a back-up and the overflow from the manhole. The Clifton crew removed most of the blockage and inserted boards to temporarily support the sewer, allowing a flow, halting the overflow at about 8:30 a.m. on July 19, 1976. The crew then opened the street and replaced a 3 foot section of the sewer. Repairs were completed at 10:30 a.m. on July 21, 1976.

Violation and Elimination - City of Clifton - Third River
September 27 - October 12, 1976 (W. Fiore)

On September 27, 1976, while making routine checks where an 8 inch Clifton sanitary sewer line crossed Third River, Inspector Fiore detected the odor of sewerage. He contacted Supt. Cupo and they conducted a check of the sanitary line by introducing fluorescein dye into the sewer at a manhole located at 24 Bridewell Place, Clifton, The color appeared in Third River, confirming the fact that the sewer was leaking. Mr. Rudy Lorenz, Clifton City Engineer, was notified and on September 28 Mr. Bush, Sewer Department Foreman, informed Inspector Fiore that because the leak was close to the river bank they would have to excavate by hand to uncover the break. For this reason he did not expect the job to be completed before early October.

On October 1 sand bags were placed around the area of the leak to contain it. By October 5 the hand digging had been completed and heavy equipment was then brought in to complete the excavation. By October 12 approximately 50 feet of clay pipe were replaced with cast iron pipe, eliminating the violation.

Violation and Elimination - Congress Textile Printers,
179 Goffle Road, Hawthorne, N.J.
August 6 - September 16, 1976 (J. Perrapato and M. Tomaro)

On August 6, while conducting routine sampling of the tributaries of the Passaic River, PVSC detected a green color in Goffle Brook, Hawthorne. The Inspectors directed to investigate, traced the color to the Hawthorne Realty Complex, 179 Goffle Rd., Hawthorne, where Goffle Brook runs under the complex. It was noted that the stream was clear upstream of this point. They contacted Mr. Frank Della Porta, Maintenance Supervisor, Hawthorne Realty, but he was unable to explain the green color. They then checked the various tenants in the complex and found employees of Congress Textile Printers washing down equipment that contained a green color similar to that in the brook.

Since the wash water flowed into a nearby floor drain, they questioned Mr. Ed Gorman, Foreman, who stated that the floor drain was connected to the sanitary sewer. He was advised by the inspectors that since the colored material was getting into the brook there was probably a leak in the line. When the company shut down operations for the weekend, on August 9, Inspector Perrapato and Supt. Cuccinello returned and conducted a dye test of the line. The dye appeared in the brook, confirming the fact that the line was leaking. PVSC was informed by Mr. Gorman that the line would not be used until it was repaired.

Congress Textile originally expected to only install about 40 feet of new line to replace that portion of the leaking line that ran below the building and work was scheduled to begin on September 2, 1976. When Inspector Perrapato inquired as to progress, he was informed by Congress Textile that they decided to replace the whole section of the line and reroute it away from the brook. On September 13, Mr. Dick McCarthy, a plumber from Hawthorne, started the installation of 220 feet of 4 inch line. Work was completed on September 16, 1976, eliminating this violation.

Violation & Elimination - Conrail (formerly Central Railroad of N.J.), 1100 Raymond Blvd., Newark, N.J.
January 14 - July 20, 1976 (J. McLaughlin)

During 1974 and 1975 there was trouble with oil coming from saturated land owned by the Central Railroad Company of New Jersey going into Lawyer's Ditch (see 1975 Annual Report, page 97). Since it seemed inpractical to remove all the saturated ground, PVSC accepted the placing of straw filters across twin 48" outlets to Lawyer's Ditch, as long as they were maintained and cleaned.

On January 28, Inspector McLaughlin, following up on a polluting samples taken by Supervisor of Industrial Waste, F. D'Ascensio, on January 14, 1976, reported that pollution was flowing through the filters. The samples taken both days (January 14 and 28) were highly polluting with very high C.O.D.'s and T.O.C.'s. On January 29, 1976, Mr. D'Ascensio wrote to the Central Railroad Company informing them of the violation and directed them to cease pollution and submit a program of abatement.

PVSC later received a copy of a letter from Central Railroad to Newark Landfill Development Company, dated February 6, 1976, enclosing a copy of PVSC's letter and stating that the letter related to pollution originating from a parcel of railroad property used by their concern. The letter also requested that they immediately remove the saturated material, and in the future do not allow it to become saturated.

Despite this, as of the end of February the situation had not improved. In fact, the sample of February 20, 1976, showed a C.O.D. of 954 mg/l, a T.O.C. of 440 mg/l, and hydrogen sulfide was present.

Inspections made throughout March by Inspector McLaughlin verified that no action had been taken to eliminate the pollution. Mr. Lubetkin finally wrote to Central Railroad on March 26, 1976 again directing them to eliminate the pollution before April 8, 1976 or PVSC would have to take legal action to force compliance. On March 30, 1976, Mr. John Heimbuch, attorney for Central Railroad, wrote to Mr. N. Raff of Newark Landfill Development Co. enclosing a copy of PVSC's letter requesting they take appropriate steps to correct the situation within the time limit stated.

On April 8, 1976, Mr. Lubetkin reported to the Commissioners that he was unable to get the Central Railroad to clean up the cause of the pollution and the matter was referred to Chief Counsel Carella to take whatever action was necessary to halt the pollution.

On April 26 Mr. Carella wrote to Trustee R.D. Timpany, General Attorney J.F Heimbuch and E. H. Wright, Vice President of Engineering, of Central Railroad giving notice that suit would be instituted in five days if the pollution was not halted.

Violation & Elimination - Conrail (con't.)

Nothing was done to correct the situation, therefore, PVSC took legal action against Central Railroad Company of N.J. and Newark Landfill Development Company.

On June 28, Mr. Lubetkin was contacted by representatives of Central Railroad on this matter who referred Mr. Lubetkin to Mr. Michael Ottilio, of V. Ottilio and Sons, 555 Preakness Avenue, Paterson, who was directed to cooperate with PVSC to eliminate the pollution.

Mr. Ottilio was contacted and he accompanied Mr. Lubetkin and other PVSC personnel on a tour of the property in question at about 2 p.m. that same day. Mr. Ottilio stated that, although he was not responsible for the pollution, since he was operating the landfill on the Central Railroad property, he was anxious to do whatever was necessary in order to abate the pollution. In order to determine a method to control the pollution, the River Inspection Department was directed to conduct a complete survey in the area of Blanchard Street, which is located just west of the Central Railroad property, to see if any company might be pumping illegally into this area through an underground line. In addition, an hour by hour log of flows would be kept to try and determine the variability of the flows.

On June 29 at 10:10 a.m. Messrs. Goldberg and Rys visited the property and observed that the level of the water was above the two 48" drain pipes which are located at the eastern end of the dumpsite and pass under the railroad. Since this practically coincided with the time of high tide,and at about 2:30 p.m. (the time of low tide) the level had dropped to only 3 or 4 inches, it was obvious that Lawyer's Ditch was tidal.

This latest data indicated that the tidal action is taking the polluting material from the filled in area and, with the water acting as a carrier, moving it to the Passaic River. Thus as the tide ebbed and flowed, some of the organic material previously buried at the dumpsite or material which might be decomposing would leach out, causing the pollution. Preliminary laboratory analysis of both samples taken on June 29 seemed to verify this conclusion. The chloride content of the sample taken at high tide was 1800 mg/l, which is normal for this part of the Passaic River. However, the sample taken at low tide was 1755 mg/l showing little dilution from flow.

PVSC requested the installation of an earth barrier to attempt to act as a filter, slowing the flow of tidal water into the dump site and filtering the flow of liquid out, hoping to control the pollution.

Violation & Elimination - Conrail (con't.)

On July 15, Mr. Ottilio began to install the earth barrier. Two truck loads of sand were spread along the base of the landfill site, approximately 2 feet thick, where Lawyer's Ditch started from their property. A truckload of gravel was then spread to cover the sand. Finally, five bales of straw were placed along the wire screens in front of the twin 48" outlets. The work was completed on July 16. On July 20 PVSC inspected the site and it appeared that these efforts have greatly reduced the pollutants leaching into Lawyer's Ditch. While the filter appears to be satisfactory at this time, PVSC will check the area to insure that the barrier is working properly and is not washed away. Conrail has also agreed that no further dumping of organic material will be allowed. PVSC dropped the suit, without prejudice, but will reinstate it if Conrail does not continue to cooperate in the pollution abatement work.

Violation & Elimination - Crows Nest Restaurant (Ye Olde Pubs, Inc.), Route 17, Hackensack, N. J.
April 9, 1975 - March 26, 1976 (J. Perrapato)

Intermittent pollution in Millbank Brook had been traced to a storm drain on the approach ramp of Route 17 South off Summit Avenue, Hackensack.

Mr. James T. Walsh, Chief, Environmental Protection Division of the City of Hackensack, by dye tests traced the source of pollution to the Crows Nest Restaurant on property owned by Alert Improvement Co.

Mr. Walsh wrote to Alert Improvement Company on April 9, 1975, informing them that dye tests showed that the waste lines at the Crows Nest Restaurant overflowed the septic tank which served the building, thence ran over the highway curbing into the storm catch basin, thence contaminating Millbank Brook, a tributary of the Passaic River. He recommended that they take immediate steps to eliminate the overflow condition.

In the interim, the septic tanks were being cleaned more often to reduce the pollution.

On April 17, 1975, a letter was sent by Mr. A. Sotirellis, President of Ye Olde Pubs, Inc., T/A Crows Nest, to the City of Hackensack, requesting permission to install a sanitary sewer from their property to the Hasbrouck Heights sewer system. He stated he would obtain the necessary permits and bear all costs.

On May 1, 1975, Mr. Squillace, City Manager of Hackensack, replied that although there was an ordinance (#938) in Hasbrouck Heights, that the agreement signed excluded the

Violation & Elimination - Crows Nest Restaurant (con't.)

properties of the Crows Nest; therefore, the agreement would have to be changed before the City could entertain the proposal of Crows Nest. He suggested that overtures be made to Hasbrouck Heights to see if they would look favorably upon the agreement modification.

On May 23, 1975, Mr. Sotirellis informed Inspector Perrapato that he had been told that any day he can expect a favorable letter from Hasbrouck Heights.

On June 13, Mr. Sotirellis reported to Inspector Perrapato that he had received approval from Hasbrouck Heights to connect into their sewer line, but he still needed permission from Hackensack. On June 25, after hearing nothing, Mr. Sotirellis stated he wrote to Mr. Squillace of Hackensack asking for quick approval, and although he said a copy of the letter would go to PVSC. None was received.

Finally, after hearing nothing further, on July 17, 1975 Mr. D'Ascensio (PVSC) wrote to Mr. Sotirellis pointing out that PVSC had received no confirmation of approval that Mr. Sotirellis stated he had received from Hasbrouck Heights and Mr. D'Ascensio further requested a copy of his letter to Hackensack and an up-to-date report with a time table for completion of the work.

On August 12, 1975, Mr. A. Sotirellis verbally reported to Inspector Perrapato that Hackensack required a land survey before connection could be approved.

On August 25, Inspector Perrapato reported that the survey was completed and on his August 28 report stated that it had been submitted to Hackensack. Still no written confirmation from Mr. Sotirellis.

On September 15, Mr. D'Ascensio wrote to Mr. Sotirellis again requesting a written status report as well as copies of pertinent correspondence. On September 23, Mr. Sotirellis wrote to Mr. Lubetkin and stated that he had received permission from both the City of Hackensack and the Borough of Hasbrouck Heights to construct a sewer and connect into the Hasbrouck Heights' sewer; that engineering studies, completed by Kenneth Job, P. E., were being studied by the various utility companies; and that he had engaged Gelewski Construction Co. of Hackensack to start construction as soon as they received the plans and obtained the necessary bonding commitments.

On November 26, Mr. Arthur Haby, Vice President, reported that Public Service Electric & Gas Company, and the local water company, had approved the plans for the tie-in, but a problem arose with New Jersey Bell Telephone due to eighteen cables buried in the street. Because of possible grade difficulties, Mr. Job was also considering rerouting the line in order to connect to the Hasbrouck Heights' sanitary line. It should be noted that PVSC had not detected any pollution from the septic tank since a weekly cleaning schedule had been instituted in April, 1975.

Violation & Elimination - Crows Nest Restaurant (con't.)

On December 5, Mr. Sotirellis informed Inspector Perrapato that Mr. Job had revised the plans and had forwarded them to Hackensack. A copy of the plans was given to Inspector Perrapato on December 18. Since PVSC had no information on a construction schedule, Mr. D'Ascensio called Mr. Wilbur Lind, Hackensack Deputy City Manager, on December 24, 1975. Mr. Lind stated that a building permit would be issued as soon as Hackensack received the bond and insurance certificate.

Frozen ground and weather conditions delayed the start of construction of the new sewer line until the end of January. Even though the weather became better in early February, and even though the contractor (Steve Gelewski) promised to start earlier, work did not start until February 26, 1976. 216 feet of 10-inch line and 527 feet of 8-inch line were to be installed and four manholes were to be constructed. The construction involved removing two large concrete pads and repaving the street. The contractor completed the sanitary sewer connection into the Hasbrouck Heights Sanitary Sewer on March 25 and on March 26, 1976 Inspector Perrapato verified that the connection was made and all work was completed, thus eliminating this pollution.

Violation and Elimination - Curtiss-Wright Corp.
1 Passaic Street, Woodridge, N.J.
April 26, 1976 (J. Perrapato)

On April 26, 1976 at about 2:15 p.m. during a routine check of his district, Inspector Perrapato discovered a white polluting substance in Feld's Brook, Woodridge. He took a sample then traced it upstream to the Curtiss-Wright Corporation, 1 Passaic St., Woodridge. He, along with Mr. Cupo, contacted Mr. Tillson of the Engineering Department and Mr. Angelo Cagliostro, the plant engineer. They then inspected the plant grounds and found an employee dumping approximately 150 gallons of a cutting fluid into a yard drain. The dumping was stopped as per their request and Mr. Cagliostro was directed to clean the polluting material from the drain. A pump was then inserted into the drain and the material was pumped into the plant's treatment system. The brook started cleaning at 4:30 p.m. and by 8 p.m. the brook was again running clear.

Violation & Elimination - Custom Optics, 216 Midland Avenue, Saddle Brook, N.J.
June 11, 1976 (J. Perrapato)

On June 11, 1976 while making routine inspections in the Saddle Brook area, Inspector Perrapato uncovered a source of an intermittant pollution at Custom Optics, 216 Midland Ave., Saddle Brook, N.J. This company has a truck loading platform at the rear of its facility. A storm drain in the yard area drains to Schroder's Brook, a tributary of the Passaic River. Various trucks are parked in the area for loading and unloading and,during the course of time,crankcase oil had leaked creating an accumulation on the ground of about ¼-inch thick and covering an area approximately 3 feet by 10 feet. At each rain,some oil was washed into the storm drain and thence to Schroder's Brook. Inspector Perrapato met with Mr. Charles Poole, Vice President and General Manager, and directed that the material be cleaned up. When Inspector Perrapato returned later that day,the yard area was clean. Mr. Poole also stated that he would insure that this material would not be allowed to accumulate in the future.

Violation and Elimination - Dumar Company (Botany Mills Complex), 841 Dayton Avenue, Passaic, N. J.
December 3-4, 1976 (A. DeMarco and L. Cuccinello)

During the time a problem had occurred on the Dundee sewer line of the City of Passaic, Ass't. Sup't. L. Cuccinello noted leakage of sewage from a 20-inch and a 12-inch line coming from the Botany Mills Complex in Passaic. The sewage was leaking into Dundee Canal.

On Friday, December 3, 1976, Inspector DeMarco and Ass't. Sup't. Cuccinello went to the offices of the Dumar Company (located in the Botany Mills Complex) and met with Mr. Albert Hughes, who stated that as soon as the City of Passaic removes the sewer blockage (which caused the back pressure on this line) and the pressure relieved, he would see that repairs were made.

At 11:15 A.M. the same day, Passaic personnel removed the blockage, and on Saturday, December 4, 1976, Dumar Company personnel sealed and cemented the open joints and repaired a hole in the 12-inch line. Work was completed 2:30 P.M. on December 4, 1976.

Violation & Elimination - City of East Orange
Central City Garage, 333 Glenwood Avenue, East, Orange, N.J.
June 14-18, 1976 (W.Fiore & M. Cordasco)

While making routine daily inspections in Watsessing Park, Bloomfield, on June 14, 1976, Inspectors Fiore and Cordasco observed a heavy film of oil flowing down Second River. They traced the oily film upstream to the Central City Garage, 333 Glenwood Ave., East Orange. Workmen were cleaning trucks with kerosine and had allowed some of the oily liquid to flow down the concrete wall into Second River. The workmen halted this work when ordered by the inspectors to halt the pollution, but Mr. Irving Schuyler, the Superintendnet, was not available at that time. Mr. Schuyler was contacted by the inspectors, upon his return on June 15, and he agreed to clean up the residue remaining on the ground and to avoid a recurrence of this type of pollution by not cleaning trucks in this area again. The area was re-inspected on June 18 and all evidence of the pollution had been removed. On that date Inspector Fiore was advised by Mr. Otto Broz, Assistant Engineer, that the trucks would be cleaned at the yard located at Midland Avenue, East Orange. They intend to lay down dirt which would be removed when saturated with oil. Although the original violation was eliminated, PVSC will continuously check to insure a similar pollution doesn't occur at the alternate location.

Violation and Elimination - Borough of Elmwood Park, Fleischer's Brook
July 28 - August 2, 1976 (J. Parr)

On July 28, 1976, Mr. Oleg Ryskov, an engineer of Boswell Engineering, notified PVSC of a small leak in a 12 inch sanitary sewer force main located at 163 Martha Ave., Elmwood Park, N.J. He requested permission to bypass the sewage into Fleischer Brook while repairs were being made. Mr. Lawrence of PVSC and Inspector Parr met with Borough officials on July 29 and inspected the leak, which was very small (about 1 to 2 gallons per min.) and was seeping up through the ground and flowing into a nearby storm sewer basin which then flowed into Fleischer Brook. The work crew dug a small trench between the pump station and the brook and allowed the seepage to flow directly into the brook rather than into the street.

Mr. Lubetkin wrote to the Mayor and Borough Council on July 30 and stated that was was essential that the pipe be repaired as soon as possible but, even more important, that all equipment and materials be on the site before starting the repair. This was necessary because, although the break was causing a small pollution at this time, only a small amount of sewage, filtered by the earth, was getting to the stream with most of the sewage going through the broken sewer so that the total flow in the line was not going directly into the brook. Once excavation was started, the break was exposed, and the repair started, the total flow would be pumped directly into the brook, increasing

Violation & Elimination - Borough of Elmwood Park (con't.)

the pollution manyfold. Mr. Lubetkin further stated that once the work was started it should proceed continuously (24 hours a day) until it is completed, thus the repair personnel should be split into at least two crews. Finally, Mr. Lubetkin requested a screening system be set up to remove the large objectionable solids before they were pumped into the stream. Due to the emergency nature of this job, the letter was hand delivered to the Borough Clerk.

On August 2 the work crew excavated the earth and discovered leaks in 2 joints of the 12 inch C.I. pipe about 8 feet apart. Bell clamps were installed to stop the leaks and the area was backfilled, eliminating the violation.

Violation and Elimination - Essex County Traffic Department, Thomas Blvd., Orange, N.J.
March 1, 1976 (W. Fiore)

On March 1, 1976, while making a routine inspection of Nishayne Brook in Orange, PVSC Inspector Fiore noticed an oily material in the brook. He traced it upstream to the Essex County Traffic Department, located on Thomas Blvd., Orange, N.J. Personnel were washing down trucks and equipment in the yard area and the wash water flowed into a storm sewer catch basin which feeds Nishayne Brook. In addition, someone had spilled some crankcase oil along the bank of the brook on vacant land beyond the fence surrounding the County facility. Inspector Fiore immediately contacted Mr. Earl Kelchner, Assistant Superintendent, and directed him to have his men stop washing the equipment. After doing this Mr. Kelchner stated that he would not allow the washing of their equipment in the yard area in future; he, however, denied that any of his men had discarded the oil on the vacant land. It therefore appeared that some of the pollution which originated from the illegal dumping of oil along the brook was from persons unknown.

Subsequently, Mr. D'Ascensio wrote to Mr. Kelchner confirming what had happened and informing him that the discharge was illegal and asking what action he intended to take to prevent a recurrence. Mr. R. J. Salvatore, Senior Engineer, called and advised Mr. D'Ascensio that the trucks were being washed with a minimum amount of water and this would be done inside the building where the flow was directed to the sanitary sewer.

Violation and Elimination - Borough of Fair Lawn, Heights Ave. Storm Sewer and North River Crossing Chamber By-Pass.
April 13-14 and April 20-23, 1976 (T. Costello)

On April 13, 1976 at 2:30 p.m. Inspector Costello noted a small volume of sanitary sewage bubbling from a manhole on the Wagaraw Road sanitary line and flowing into the adjacent Height Avenue storm sewer causing a pollution of the Passaic River. A greyish discoloration was visible in the river for approximately three feet.

Inspector Costello notified Mr. A. Levelle, Fair Lawn Sewer Department Foreman, who, with a crew, arrived at the site shortly and removed a small bundle of rags from the sewer. Since this did not alleviate the situation, Mr. Levelle said he would return in the morning with larger equipment and clean the remainder of the line.

On the morning of April 14 at 8:15 a.m. Mr. Levelle stated he had to open Fair Lawn's North Inverted Siphon by-pass line, allowing sewage into the Passaic River, in order to lower the sewage elevation to clean the line. An accumulation of grease, rags, etc., was removed and the by-pass closed at 3:30 p.m.

On April 20 at 2:10 p.m. the sewage was again bubbling out of the same manhole and the Borough was notified of this problem. On April 21, since no overflow was occurring, Inspector Costello checked and discovered the North by-pass valve again open and sewage was flowing into the river. When called, Mr. Levelle informed Mr. Costello that it was necessary to open this valve to prevent sewage from backing into the street. He further stated that the problem apparently was a blockage in the river siphon itself and he would immediately take the matter up with his superiors to get a contractor to clean the siphon.

The evening of April 21, at an emergency meeting, the Mayor and Council authorized a contract to Heyrich Municipal Pipe Cleaning Co. of Little Falls to clean the siphon at once. They were contacted the morning of April 22 and were on the site working at 8 a.m. April 23, 1976, completing the work on the 18" line at 9:30 a.m. the same day halting the pollution and eliminating the violation.

On April 26, 1976 the 16" pipe of this twin crossing was also cleaned.

Violations 2

Violations & Eliminations - Fair Lawn Water Pollution Control Facilities, 2-01 Saddle River Road, Fair Lawn, New Jersey

This activated sludge plant treats an average daily flow of 2.7 million gallons per day and discharges its chlorinated effluent to Saddle River, a tributary of the Passaic River. The sludge is digested and dried in lagoons. The licensed operator is Donald Eelman. Since the discharge comes within the PVSC basin area, the Commissioners monitor routinely.

In 1976, of 50 samples taken of their discharge, only eight samples were not satisfactory.

January 6 and February 3, 1976 (M. Tomaro)

Two samples during January and February were unsatisfactory because (according to Mr. Eelman), the gas relief valve on the digestor froze, allowing gas pressure to build up and force excess supernatant out an overflow line to head of plant, overloading it for a short period of time. Mr. Eelman claimed that the problem was corrected thirty minutes after it was discovered.

March 19 - July 20, 1976 (M. Tomaro & J. Perrapato)

The sample taken on March 18 was again polluting. On March 19, Mr. Goldberg, PVSC Director of Sanitation Control, called the treatment plant and spoke to Mr. J. Lunetta, Laboratory Technician. Mr. Lunetta explained that the heating system in the chlorine room had failed and the cold chlorine cylinders were unable to deliver the chlorine at a rate sufficient to kill the bacteria. This resulted in the high fecal coliform count.

A follow-up sample taken on March 23 again exceeded the pollution standards for several parameters (suspended solids, turbidity, total organic carbon), but were within the limits for fecal coliform. Once again Mr. Goldberg called the plant and spoke to Mr. J. Lunetta and to Mr. W. Davidson, Senior Operator. The pollution was caused by a breakdown of the digester which handles the primary sludge. They also said that the digester developed a crack and would have to be taken out of service for a minimum of two months for repairs. Because of this breakdown, there would be no primary sedimentation and the influent will go directly to secondary aeration chambers. The increased load would decrease the degree of the treatment and would probably result in a discharge from the treatment plant containing higher turbidity, suspended solids, BOD and TOC. However, they stated they would try to modify the secondary process to handle the extra load. On March 30, 1976 a representative of the NJDEP conducted an investigation of the Fair Lawn plant and they also found that excessive amounts of suspended solids and settleable solids were being discharged into Saddle River as a result of modified plant operation due to the failure of the Primary Digester.

Violation & Elimination - Fair Lawn Water Pollution Control Facilities (con't.)

Although a sample taken by PVSC on March 31 was an improvement over the March 23 sample, proper repairs had not been made.

Mr. Eelman reported to Inspector Tomaro that on April 13, 1976 a contract was awarded to the Modern Transportation Co. of South Kearny for cleaning out the digester.

The cleanout started on April 19 and was completed on April 22. Of the four samples taken of the plant effluent during April only the April 14th sample was slightly high in turbidity and COD.

On April 7, 1976 Mr. P. Lynch, Manager of the Passaic-Hackensack Basin Water Pollution Control Monitoring, Surveillance and Enforcement Element of NJDEP put the Borough of Fair Lawn on notice that their treatment plant was not operating properly due to the failure of the primary digestor. The Borough was directed to institute all measures necessary to correct the situation, on an emergency basis, including the award of a contract for repair by April 28, 1976.

On May 12 Mr. Eelman reported to Inspector Tomaro that the Borough Council, on May 11, had awarded a contract to repair the primary digestor to the Pressure Concrete Co. of Tennessee. Repairs commenced on May 28 and were completed on June 25, 1976.

Mr. Eelman reported that the clean-up work was completed and the digestor back on the line on July 20, eliminating the pollution. Samples taken on July 21 and July 27 were satisfactory.

Violation and Elimination - Farrar Company, 188 East Railway Ave., Paterson, N.J.
July 29 - September 29, 1976 (M. Tomaro)

In July, while reviewing a Waste Effluent Survey submitted by Farrar Company, a question arose concerning whether or not the discharge from this company entered the Paterson sanitary sewer. Inspector Tomaro met with Mr. John Anderson, Paterson Supervisor of Sewers, on July 27, 1976 and they dye tested this company's outlets. The dye test from the toilet facilities entered a septic tank; but the dye from the filter wash operation entered

Violation & Elimination - Farrar Company (con't.)

a storm sewer on East Railway Avenue. This storm sewer, which feeds the Maryland Avenue storm sewer, ultimately enters the Passaic River at the foot of Market Street. Inspector Tomaro met with Mr. Donald Farrar, Owner, who explained that the air filters were cleaned with water and an alkaline detergent, with the effluent being discharged through three separators into the storm sewer. He also stated that the separators were cleaned every 8 to 9 weeks. Inspector Tomaro took a sample which, when analysed by the PVSC laboratory, was polluting. He returned on August 5 and advised Mr. Farrar that the discharge was polluting and that it was illegal to discharge industrial waste to the storm sewer without an NPDES permit issued by USEPA. Mr. Farrar explained that the separators were cleaned on August 4 and a sample taken that day was non-polluting. Inspector Tomaro visited Farrar again on August 17 and sampled the discahrge. This sample was polluting having a high pH. When Mr. Farrar stated that he had applied to USEPA for a permit, he was told his discharge was intermittantly polluting and wouldn't be allowed even with a permit.

Mr. D'Ascensio wrote to Mr. Farrar on September 2 and confirmed what Inspector Tomaro had told him. Mr. Farrar replied on September 23 and stated that On September 17 his company had taken steps to eliminate the violation. He was now adding a neutralizing agent, Oakite Enprox 702, to the wash solution before it was discharged. He had reduced the amount of rinse water used and Mr. Farrar was personally monitoring the program to insure that it meets PVSC standards. Samples taken on September 23 and 29 were acceptable, however, PVSC will continue to monitor the discharge.

In addition, PVSC, by copy of this report, notified USEPA to determine if an NPDES Permit was being issued to Farrar Company. PVSC was notified that a permit would be issued in January.

Violation & Elimination - First National Stores, 123 Pennsylvania Ave., Kearny, N.J.
June 18-23, 1976 (L. Cuccinello & J. Colello)

While conducting a routine sampling of the 24 inch storm sewer on Pennsylvania Avenue, Kearny, on June 18, 1976, Mr. Cuccinello observed a slight discharge of oil emanating from the nearby Kearny 42-inch Pennsylvania Avenue Storm Sewer which flowed into the Passaic River. He immediately began to lift manhole covers in an attempt to locate the source but was unable to trace the oil beyond Jacobus Avenue. Mr. Cuccinello then contacted the Kearny Sewer Department for sewer diagrams which they stated they could not furnish. Inspector Colello followed up on this complaint and contacted Mr. James McLeavy, Foreman, Kearny Department of Public Works on June 21.

Violation & Elimination - First National Stores (con't.)

He made an appointment to meet with him and a work crew on June 23 and together they continued the investigation. By checking manholes block by block they located the source of the pollution at the First National Stores truck and warehouse depot at 123 Pennsylvania Avenue. There they found, above the ground, a 6,000 gallon #2 fuel oil storage tank at the rear of the facility. Evidence of oil could be seen along the ground leading to a nearby catch basin which thence went to the storm sewer. They spoke to Mr. Ernest Lunden, Fleet Plant Maintenance Manager, and showed him the evidence of the oil spill in the yard. Mr. Lunden explained that the First National Stores had an oil spill on Friday, June 18th, when the driver of the fuel oil truck was not attentive while making a delivery allowing the storage tank to overflow into area retained by the three-foot high dike surrounding the tank. This area had not been kept clean and had become filled with water, thus some of the oil overflowed onto the ground where it ran into the near-by catch basin. It was estimated that approximately 150 gallons of fuel oil spilled out of the tank. The supplier, Petroleum Carriers of Roselle Park, was notified of the spill and they dispatched a crew to clean it up. The crew pumped the oil from behind the dike and spread Speedy-Dri on the ground. The crew returned on June 19 and completed the job. Since, when PVSC inspectors checked the area on June 23, there was still oil remaining in the catch basin, Mr. Lunden was directed by PVSC to have this cleaned. Mr. Lunden had his men spread more Speedy-Dri in the catch basin and picked up the remaining oil. Although all evidence of the oil was removed from First National Stores property, it was several weeks before the evidence of the oil spill was gone from the storm sewer outlet and banks.

Violations & Eliminations - Fisher Scientific Company, 1 Reagent Lane, Fair Lawn, N.J.
August 4-6, 1976 (J. Perrapato)

On August 4, 1976, PVSC was notified by Mr. William Davidson of the Fair Lawn Sewer Department, of a pollution at Fisher Scientific Company. Inspector Perrapato proceeded to the area and observed sanitary sewage seeping into Henderson Brook, a tributary of the Passaic River from a sewer break on the property of this company. He was told this had occurred about 2:30 a.m. that morning. He met Mr. John Pacos, Maintenance Superintendent, and directed him to do whatever was necessary to have the pollution halted. Mr. Pacos had his plumbing contractor detour the flow, with a sand barrier, into the next downstream sanitary manhole, about 200 feet to the West, thus temporarily eliminating the pollution at 1:00 p.m. The contractor then began excavation to repair the leaky line working until 9 p.m. that night. Work resumed the next morning and at about 8 p.m. on August 5 Fisher Scientific shut down the plant

Violations & Eliminations - Fisher Scientific Co. (con't.)

in order to facilitate repairs. By 2:30 P.M. on August 6, the contractor completed the replacement of about 100 feet of 6-inch pipe and the plant resumed operations. At about 1 P.M. Hendricks Brothers, Paterson, jet sprayed the line to wash out any mud that may have accumulated in the line while repairs were being made.

December 21-28, 1976 (W. Fiore)

At about 4:45 P.M., PVSC received a complaint of a green color in Henderson Brook. Inspector Fiore proceeded to Fair Lawn and did, in fact, observe that the brook was green at River Road. He traced the color north and found the dye entering the brook from a 30-inch pipe from Fisher Scientific Company.

He contacted Plant Superintendent, Paul Johnson, and was informed that the plant does not manufacture but only packages chemicals. The green color appeared to be flourescein dye which is handled at the plant. Together with Engineer Neil Desai, the plant was checked, but no evidence of a spill could be found. Mr. Desai stated that no floor drains or pipes enter the brook from the plant. Finally, Inspector Fiore took a sample which, when analyzed by the PVSC Laboratory, was polluting.

On December 22 Inspectors Fiore and Perrapato returned to the plant and met with the Plant Engineer, Carl Vogel, and Vice President, Charles Dickson. Further investigation revealed that the green color came from a malfunction of the scrubber in the air pollution control equipment which is located on the roof. The scrubber removes the dust from the packaging area with a fan and the dust particles, containing the dye, are removed prior to discharge to the atmosphere by recirculating a spray of water which dissolves the dye. The contaminated water, about 100 gallons, is drummed and removed (monthly) by Environmental Services Co., Passaic, for disposal.

The return line from the roof had frozen and the scrubber water, which contained the dye, ran onto the roof and into the brook, via a roof drain, which is connected to the 30 inch storm pipe.

Inspector Fiore directed that repairs be made and preventive measures be taken to avoid a recurrence. On December 28, Inspector Fiore returned to the plant and observed that the water line had been repaired. Mr. Vogel informed Inspector Fiore that the scrubber would not be used until the exposed lines were properly insulated and a galvanized tray installed to catch any drippings.

Although the violation is being eliminated, PVSC will check to insure that all the remaining necessary corrective action is satisfactorily completed.

Violation and Elimination - Friedman's Express, Inc.
241 Avenue P, Newark, N.J.
April 8 - 13, 1976 (J. McLaughlin)

While making routine checks in Newark at 2 p.m. on April 8, 1976, Inspector McLaughlin discovered a grayish, oily liquid flowing into a storm sewer catch basin on Foundry St., Newark. This storm sewer fed the Roanoke Ave. Storm Sewer which discharged into the Passaic River. The oily liquid emanated from Friedman's Express, Inc., 241 Avenue P, Newark, N.J. Inspector McLaughlin immediately took a sample and contacted Mr. Joseph Bartash, Terminal Manager, and showed him the source of the pollution. The solvent "Stodar" used to clean truck parts, was running out of the building and along a ditch into the catch basin. Inspector McLaughlin immediately directed Mr. Bartash to cease the pollution and clean up the area. Analysis of the sample by the PVSC Laboratory confirmed what was obvious to the inspector's eye, it was polluting.

Inspector McLaughlin returned on April 13 and found that the area was cleaned and the ditch was filled with fresh stone. Mr. Thomas Reno, Shop Foreman, reported to Inspector McLaughlin that the waste liquid was being stored in 55 gallon drums and would be sent to Friedman's Terminal in Wilkes Barre, Pa., for reprocessing.

Violation and Elimination - City of Garfield,
Saddle River
March 31, 1976 (J. Perrapato)

At about 11 a.m. on March 31, 1976, while making a routine inspection of Saddle River, Inspector Perrapato discovered a manhole from a 10" City of Garfield sanitary sewer overflowing into the river. The manhole is located at the rear of a Two-Guys store on Passaic St., Garfield. The sanitary overflow ran approximately 50 feet down the embankment and into the river, causing the pollution. He immediately notified the Garfield Sewer Department and a work crew arrived about 11:30 a.m. By 2 p.m. the blockage was cleared, the overflow ceased and the violation eliminated.

Violation and Elimination - City of Garfield, Van Winkle Avenue Storm Sewer
August 9-10, 1976 (J. Parr & J. Perrapato)

At about 5:30 p.m. on August 9, 1976, PVSC received a call concerning a blockage in a 12 inch Garfield Sanitary Sewer in the vicinity of Belmont Park on Spring Street, Garfield. Inspector Parr, Inspector Perrapato and Supt. Cuccinello met at the park where they observed sanitary sewage overflowing from a manhole behind the tennis courts. The sewage flowed easterly into a drainage ditch which borders the Erie Lackawanna Railroad, then southerly, via the ditch, into the Van Winkle Avenue Storm Sewer, thence to the Passaic River. They also found three other manholes, upstream, overflowing into the same drainage ditch. It was apparant there was a blockage in the sanitary sewer which caused the overflows.

A city of Garfield Sewer Department work crew was seen by the inspectors attempting to remove a blockage in the sewer at Belmont Avenue. The work crew removed a piece of a railroad tie about 42 inches long, thus clearing the line sufficiently to stop the overflows at that time.

At 9:30 a.m. on August 10 Inspector Parr and Mr. Cuccinello returned to Belmont Park and observed that the manholes were again overflowing. They advised Mr. Louis Mazza, Assistant Superintendent, of the situation and a work crew returned to the Belmont Park area with the PVSC personnel and cleaned debris from five manholes along the line. In addition, the work crew cleaned out a large rectangular pit at Garden Court East, north of the five manholes and near the Eastern Overall Company, 51 Schley St. By 3:30 p.m. the line was again clear and the violation was eliminated.

During the investigation of this pollution it appeared that the railroad tie was most likely thrown into the large pit which had an easily removable metal cover. An 8 inch overflow was also observed in this pit which could allow sanitary sewage to flow into the drainage ditch.

Mr. D'Ascensio wrote to Mr. Stanley Galorenzo, City Engineer, August 26, and requested that the cover of the pit be secured and that Garfield either seal the 8 inch sanitary overflow or obtain an NPDES permit for it. At the year's end, the above action had not been taken although no subsequent overflows were observed.

Violation and Elimination - Garfield & Passaic Transit Company, 157 Outwater Lane, Garfield, N.J.
October 5 - 19, 1976 (J. Parr)

On October 5, 1976, while making routine checks in his district, Inspector Parr saw a gray liquid flowing into a storm sewer at the intersection of Liberty Street and Palisades Ave., Garfield. The waters in this catch basin flowed south to Outwater Lane, thence west into Fleischer Brook. He took a sample and traced the pollution to the Garfield and Passaic Transit Company.

Inspector Parr met with the president, Mr. Alfred Huebner, and, upon investigating, Mr. Huebner was advised by one of his employees that a bus had returned to the garage the previous night with a broken oil line and the following morning employees hosed down the accumulated oil with water and the mixture flowed into Liberty St. and into the storm sewer catch basin. Inspector Parr instructed Mr. Huebner to clean up the material in and around the curb and storm sewer.

While in the garage, Inspector Parr also discovered a hole in the concrete floor where waste oil drums were stored. Investigation revealed that this hole was connected to an 8" line which went directly to the storm catch basin on Liberty St. and Palisades Ave. Thus, any spillage of oil into the hole would pollute Fleischer Brook. Inspector Parr directed Mr. Huebner to seal the opening since it was a potential source of pollution and was illegal without an NPDES permit. On October 19 Inspector Parr returned and observed that the oil had been cleaned up and the opening was sealed.

Violations & Eliminations - Gibraltar Chemicals & Plastics, 199 Garibaldi Ave., Lodi, N.J.
Sept. 15, 1976 (M. Darmstatter & J. Parr)

On September 15, 1976, during routine checks in Lodi, Inspector Darmstatter observed traces of oil in Millbank Brook, at Garibaldi Ave., Lodi. He contacted Inspector Parr and together they traced the oil to the vicinity of Gibralter Chemicals and Plastics Corp. They spoke to Mr. M. Maitucci, Plant Manager, who could not explain the presence of the oil in the brook. However, while making an inspection of the yard area, an employee of Gibraltar Chemicals admitted that an oil spill had occurred at the plant about one week ago when an oil tank was overfilled. The oil on the ground was subsequently washed by rain through a hole in the pavement into Millbank Brook, which passes under the plant at that location.

At a meeting with Mr. Maitucci and Mr. Friedman, President, on September 24, Mr. Friedman stated that he intended to pave the year area and to seal the opening to Millbank Brook. In November, the oil contaminated soil was removed and clean stone was placed around the tanks. The opening to the brook was not sealed because flooding could occur when it rained.

Violations & Eliminations - Gibraltar Chemicals & Plastics (con't.)

Oct. 7-28, 1976 (J. Parr)

While PVSC had been conducting surveys of Millbank Brook to locate the source of an intermittent sanitary pollution, samples taken on October 19, 21 and 27 of the Brook indicated that the pollution originated at Gibraltar Plastics.

Although dye tests conducted in the main plant bathrooms were negative, the pollution continued to show up in Millbank Brook. Finally, on October 27, Inspector Parr requested permission to enter and inspect the factory to search for possible sources of sewage. He went to the maintenance department and requested information on any bathrooms or drains not previously seen. He was told that one existed which had been closed for months. When Mr. Parr went to inspect it, he found that a door, which had been nailed shut, was then open and although the water had been shut off, fecal waste was present in the toilet bowl.

Inspector Parr directed Mr. Davis to turn on the water and clean out the bowl. When this was done he introduced dye into the toilet and, when it was flushed, the dye showed up in Millbank Brook. Further investigation revealed a second bathroom next to that one. Since they were a source of the pollution, Inspector Parr instructed Mr. Davis to remove the toilet facilities and plug the lines. On October 28 the work was completed and samples taken of the Brook at that time were no longer polluting.

Violation and Elimination - Globe Products Company, Inc. 55 Webro Road, Clifton, N.J.

August 25-26, 1976 (T. Costello)

On April 25, 1976, PVSC received a call from Mr. Robert Holster, Passaic Mayor's Office, concerning a discharge entering Hughes Lake, Passaic. Inspectors Costello and De Marco proceeded to the area and started searching for the cause. The material in the brook appeared to be a type of fungus. Samples were taken and laboratory analysis later confirmed that the material was polluting.

Inspector Costello checked several areas in Passaic and Clifton along Broadway, Scoles Ave., and Shafto St., aided by Supt. Cupo and Inspector Fiore and a crew from the Clifton Sewer Department which assisted in lifting manhole covers. The fungus-like material was finally traced to an area along Scoles Avenue, Clifton where McDonald Brook is piped under the street. At 4:30 p.m. Supt. Cupo found a 10 inch pipe from Globe Products Company, Inc., discharging red colored liquid which was later found to be the wash of food syrups (cherry) going into the brook. He entered the plant and directed Mr. Curt S. Filienfeld, Vice President, to cease the illegal discharge immediately. Supt. Cupo then conducted an inspection of the plant with Mr. Tom Thorpe, Manager of Quality Assurance. The inspection revealed

Violation & Elimination - Globe Products (con't.)

the existence of a floor drain in the plant which was connected to the 10 inch pipe. Employees cleaned up the area, where various food syrups were used, and the wash water flowed into the floor drain and thence into McDonald Brook. Mr. Thorpe stopped the operation and stated he would plug up the floor drain. Mr. Cupo also advised him that since he was using the 10 inch line to discharge non-contact cooling water to the brook, the company is required to apply for an NPDES permit.

The floor drain was sealed on August 26 eliminating the source of the violation. A sample taken from the 10 inch pipe on September 9 was non-polluting. Apparently this discharge had provided the nutrients which acted as food for the fungus-like material seen in McDonald Brook.

Violation and Elimination - Golden Cycle, Inc.
216 Route 17, Lodi, N.J.
March 17, 1976 (J. Perrapato)

On March 17, 1976, at about 1:30 p.m., Inspector Perrapato discovered an oil slick in Millbank Brook at Garibaldi Avenue. This pollution was traced back to Golden Cycle, Inc., 216 Route 17, Lodi. A buried tank for the storage of used varsol and oil is located on this site at the rear of the building approximately 20 feet from Millbank Brook. A pipe had been sheared at the top of the tank allowing rain water to enter the tank, filling it and floating out the oil which flowed down the bank and into the brook. The owner, Mr. Golden, when shown this explained that the pipe may have been broken by a snow plow previously used to clear the property. He then immediately had his workers clean up the oil on the ground and by 3:30 p.m. had the broken pipe capped, thus eliminating the pollution.

Violation and Elimination - Grand Union Supermarket,
Corner of Goffle Rd. and Godwin Ave., Midland Park, N.J.
April 7, 1976 (T. Costello, M. Tomaro)

On April 7, 1976 at about 5 p.m. a degreaser solvent "Corbin" composed of 90% Orthodichlorobenzene and Mulifor was washed into a drain in the Grand Union Supermarket located on the corner of Goffle Road and Godwin Avenue in Midland Park. The Store Manager, Mr. Carl Campione, stated that E.D. Sewer and Service Co. of Closter, N.J., was attempting to clean out a dry well at a truck loading dock in the rear of the building. A worker spilled about 15 gallons of this degreasing agent.

Violation & Elimination - Grand Union Supermarket (con't.)

The dry well overflowed and the material then flowed into a storm sewer catch basin and thence into Goffle Brook via the Rea Ave. storm sewer just upstream of Kings Pond. The toxic milky white substance contaminated Goffle Brook, Kings Pond and the Passaic River leaving hundreds of dead fish and delaying the stocking of this pond with trout and closing it for the trout season opening.

Mr. Campione said that they would take immediate action to prevent a recurrence of such incidents by reviewing the floor drain clean up procedures.

Violation & Elimination - R. A. Hamilton Corp.
409 South River St., Hackensack, N.J.
July 15, 1976 (J. Parr)

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At 2:10 p.m. on July 15, 1976, while conducting routine checks, Inspector Parr observed a work crew repairing a sewer pipe at the intersection of Main St. and Sidney St., Lodi, N.J. They were pumping sanitary sewage from a manhole on Sidney St. approximately 125 feet east of the intersection. This sewage flowed along Sidney St. into a nearby storm sewer catch basin and thence to Saddle River. Mr. Mastrangeli, Foreman for R.A. Hamilton Corp., informed Inspector Parr that at about 1:10 p.m. his work crew had inadvertently broken the 8" sanitary line while they were digging to install a 4 inch PVC pipe for the Bell Telephone Company. They had pumped the sewage out of the nearest upstream manhole in order to lower the volume in the sanitary line so it could be repaired. Inspector Parr advised Mr. Mastiangeli that this was an illegal discharge and directed him to cease. The pumping was stopped and the repairs were completed at 2:45 p.m., ending the pollution. Mr. Della Penta, Superintendent of the Lodi Sewer Department, then had the area flushed with fresh water.

On July 30, PVSC Superintendent F. D'Ascensio wrote to R.A. Hamilton Corp. confirming the inspector's directive and requesting that the R.A. Hamilton personnel be alerted to the proper method of handling this type of situation so that this type of pollution does not recur.

Violation & Elimination - Borough of Hawthorne, Passaic River
November 17 - 23, 1976 (W. Fiore)

On November 17, 1976, while making routine checks in Hawthorne, Inspector Fiore observed a flow entering the Passaic River from a storm sewer through a ditch east of Merck Chemical Company. Samples taken from the ditch indicated that there was a sanitary pollution. On November 19, he met with Mr. Gilmartin of Hawthorne to get assistance in order to trace the source of the violation. Mr. L. Spinoso, Assistant Foreman, was directed to aid Inspector Fiore and together they lifted manhole covers

Violation & Elimination - Borough of Hawthorne (con't.)

on the Storm Sewer on Lincoln Street and Washington Avenue. They traced the pollution to a blockage in a sanitary sewer on Washington Avenue which caused the sewage level to rise and overflow through a broken standpipe into an underdrain which was connected to a storm sewer.

On November 22, the blockage was removed with a power jet by Hawthorne personnel, and on November 23, the standpipe was sealed with cement thus eliminating violation.

Violation and Elimination - Houdaille Construction Materials and Glerum Concrete Corporation, Clove Road, Upper Montclair, New Jersey
December 10, 1975 - May 11, 1976 (M. Cordasco)

The Houdaille Construction Materials, Inc., have a permit to discharge through an outfall (001) its cooling water to which is contributed surface runoff from adjacent areas.

The surface runoff picks up cement dust, alkalinity, truck residue, etc., from the ground and flows to a "settling pond" which thence overflows through a six-inch pipe to a ditch, thence to another six-inch pipe thru a dam into Pearl Brook.

Samples taken December 10, 1975 showed high turbidity and suspended solids indicating that the pond was not effective in keeping this material from Pearl Brook. Later PVSC was informed by Houdaille that the USEPA had, on November 14, 1975, inspected their facility and Houdaille was subsequently advised by USEPA that the discharge was polluting having high suspended solids.

Houdaille took the position that its tenant, Glerum Concrete Corporation, was responsible for the runoff and pollution, and on December 12, 1975 wrote to Glerum informing them about the USEPA inspection and subsequent report, and stated that Glerum should take corrective action or Houdaille would look to Glerum for damages that Houdaille would sustain.

On December 17, 1975, Mr. F. D'Ascensio and Inspector Cordasco met with and conducted an inspection with Mr. J. Glerum, at which time a large bank of material piled along the edge of the pond and drainage ditch was pointed out to Mr. Glerum. Apparently, during rain, significant quantities of material from this bank enters the pond and ditch contributing to the high suspended solids. Mr. Glerum stated that the bank would be removed. Mr. D'Ascensio wrote to Glerum on December 19, 1975, confirming the inspection and asking what would be done to eliminate the pollution.

Houdaille claimed that the sedimentation build-up in the pond resulted from the Glerum runoff.

Violation & Elimination - Houdaille Construction Materials (con't.)

On December 23, 1975, Mr. P. Arts of Glerum replied to Mr. D'Ascensio's letter, and stated that they would:

1. Remove contaminating material from alongside drainage ditch and slope toward settling pond.

2. Make solid curb around paved area to prevent runoff from entering drainage ditch.

3. Divert surface water from Clove Road from crossing their property, thus reducing solids pick-up before flowing into drainage ditch.

4. Continue to pave yard to aid in housekeeping.

On January 27, 1976, Mr. Lubetkin wrote to Houdaille concerning the pollution, and pointed out that since Glerum was located on Houdaille property, that PVSC felt it was Houdaille's duty to do whatever was necessary to halt the pollution. Mr. Lubetkin also suggested that if their settling pond was cleaned that they might get better settling with longer detention time. Mr. Lubetkin further requested information on when they intended to implement whatever was necessary to halt the violation.

On February 6, 1976, Mr. H. Englishman of Houdaille replied that they could complete cleaning the settling pond by March 19, 1976, and they had been advised by Glerum that the work as described in Mr. Art's letter of December 23, 1975 would be completed on or before April 1, 1976 depending upon weather conditions.

On March 19, Inspector Cordasco reported that the pond had been dredged approximately 5 feet wider and 10 to 15 feet deeper. As a result, there was almost no flow through the 12-inch drain pipe into Pearl Brook. Glerum also cleaned out the pit at the downstream edge of their facility, completed the curbing along the edge of the pond and brook, and completed the removal of the polluting material along the banks.

The three samples taken during April 1976 were marginally unsatisfactory. The turbidity and suspended solids indicated there was still incomplete settling.

The sample taken on May 11 was non-polluting; therefore, this violation was eliminated.

Violation & Elimination - Inmont Corporation - 150 Wagaraw Road, Hawthorne, New Jersey
November 10, 1976 (W. Fiore)

2 accident

On November 10, 1976, Mr. W. Halaka, Maintenance Engineer, Inmont, notified P.V.S.C. of a spill that occurred at the plant that morning.

Mr. Halaka explained that a vacuum condenser had not been properly emptied and the condensate, which contained red ink, overflowed through the vacuum pumps and onto the floor. The floor drain, which is connected to the sanitary sewer, was plugged and as the volume increased, the material flowed to another floor drain which discharged into the Passaic River. By 3:30 P.M. the blockage in the sanitary drain had been removed and the floor drain, which was connected to the Passaic River, was subsequently sealed, eliminating the violation.

Violation & Elimination - Little Ferry Asphalt Company 9 Bergen Tpke.,Little Ferry, N.J.
July 16, 1976 (D. De Marco)

2

At 9:45 a.m. on July 16, 1976 PVSC received a call from the City of Passaic concerning oil in Hughes Lake. Inspector De Marco and Mr. Cuccinello proceeded to the area and observed a collection of oil at the entrance of the lake. They followed the slick upstream and found it flowed from a 24" storm sewer which drains Mineral Springs Ave. and Pearl St., Passaic, into McDonald Brook, a tributary of Hughes Lake. Inspector De Marco and Superintendent Cuccinello then proceeded up Pearl St. and discovered a catch basin containing a slight oil slick. Since Pearl St. had just been repaved by the Little Ferry Asphalt Co., 9 Bergen Turnpike, Little Ferry, N.J., it was obvious that either the morning rain had washed some oil off the fresh pavement or the contractor had dumped some waste oil into the nearby catch basin which then flowed through the storm sewer into McDonald Brook and Hughes Lake. The rain dissipated the oil later that day. Mr. Cuccinello contacted Mr. Allen Schuman, Passaic Director of Community Development, who was responsible for this project, and advised him that contractors must keep this type of material out of the tributaries of the Passaic River.

Violation & Elimination - Borough of Lodi, Garibaldi Avenue Sanitary Sewer
July 13, 1976 (J. Perrapato & J. Parr)

At 11:30 a.m. on July 13, 1976, while following up on the pollution of Millbank Brook caused by the Meta Lane Pumping Station (see page 162 of this report), Inspectors Perrapato and Parr observed an overflow from a sanitary sewer manhole at 220 Garibaldi Ave. which flowed into a nearby storm drain and then into Millbank Brook.

Violation & Elimination - Borough of Lodi - Garibaldi Avenue Sanitary Sewer (con't.)

They immediately notified the Lodi Sewer Department. Lodi personnel arrived with their jet cleaner truck and by inserting the hose into a manhole about 100 feet west of the overflow, unblocked the sewer and the level dropped to normal. By 12:30 p.m. the violation was eliminated.

Violation & Elimination - Borough of Lodi, Hendricks Pumping Station, Main St., Lodi, N.J.
July 19, 1976 (J. Parr)

At 2:15 p.m. on July 19, 1976, while making routine checks of Saddle River, Inspector Parr observed a slight flow of a foaming sewage from the 15 inch overflow line from the Hendricks Sewage Pumping Station, Main St., Lodi, N.J.

Although the pump house was locked, he did not hear any pumps running, therefore he went to the Lodi Sewer Department and returned with Mr. A. J. Della Penta. Their investigation revealed that the sewage level float had become stuck and did not operate the pump, therefore the wet well filled and overflowed into Saddle River. Mr. Della Penta freed the control mechanism and the pumps started,eliminating the violation.

Violation & Elimination - Borough of Lodi, Meta Lane Pumping Station, Lodi, N.J.
July 12, 1976 (J. Parr)

At 1:50 p.m. on July 12, 1976 while making routine checks in Lodi, N.J., Inspector Parr observed that the 8" overflow line at the Meta Lane Sewage Pumping Station was discharging sanitary sewage into a ditch adjacent to the building which flowed into Millbank Brook. The building was locked but the inspector immediately contacted Mr. Della Penta, Supt., Lodi Sewer Department. Mr. Della Penta, who arrived after a short while, opened the building and, upon entering, they observed that neither of the two pumps were working. Mr. Della Penta shut a valve in the overflow line stopping the discharge and left to get a work crew. Later Mr. Della Penta informed Inspector Parr that a valve on the discharge side of one of the pumps developed a leak at the stem and sewage sprayed onto a nearby compressor. The compressor supplied air to the fluid level meter which controls the operation of the pumps. When the grounded compressor shut off,the high sewage level wasn't indicated and therefore, the pumps did not start as the level rose in the wet well. The Rapid Meter Pump and Meter Co. of Little Ferry repaired the compressor later that day.

Violation and Elimination - Borough of Lodi, Richmond Street Pump Station
December 2-10, 1976 (J. Parr)

On December 2, 1976, PVSC received information that a sanitary pump station, located on Richmond Street, Lodi, was overflowing into Saddle River. Superintendent Cupo, Inspector Parr, and Inspector Perrapato proceeded to the pump station and then informed the Borough Administrator, Mr. Loiacono, of the problem. They then met with Mr. Loiacono, Mr. Della Penta, and Mayor Paci to determine what corrective action was being taken.

For background information, it is necessary to know that the Richmond Street Pumping Station, which pumps sewage from a section of Lodi into their force main, which then goes to the PVSC trunk sewer in Passaic, has three pumps. Each pump is capable of handling the normal flow during dry weather periods; however, during wet weather, two pumps appear to be needed.

The inspectors were informed that sometime in January, 1976, one of the pumps failed and was put out for repair (supposedly at an estimate of under $2,500.), but when an invoice of $3,892.45 was submitted, the Council refused to pay as it exceeded the $2,500. allowed without public bidding under the Public Contract Law, and therefore the contractor, Artesian Well Company, refused to deliver the pump.

On or about November 25, 1976, the second pump became inoperable and the Borough received an estimate of $2,475. for its repair. Emergency meetings were held on November 30 and December 1, 1976 to authorize the repair of the second pump; however, the Borough Attorney advised the Council that, due to the aggregation of the repair bills on the sewage pumps ($2,475. + $3,892.45) in the course of a year's time, an emergency resolution would be required to prevent a possible violation of the local Public Contract Law. The majority of the Council members elected not to pass an emergency resolution, since they felt one pump had nothing to do with the other.

On December 2, 1976, PVSC became aware of the situation and also that the third (and last) pump was leaking badly, and was in danger of failing.

Mr. Lubetkin, upon receiving the report from the inspectors, had a letter hand delivered to the Borough Administrator stating that PVSC believed an emergency situation existed, since if the third pump failed, a massive pollution of Saddle River would occur and PVSC believed that, besides the second pump being installed, the third pump should also be installed as added protection.

Violation & Elimination - Borough of Lodi, Richmond Street Pump Station (con't.)

Meanwhile, Mayor Paci wrote to the New Jersey Attorney General on December 2, 1976, stating that even though the Council refused to act, since they claimed administrative action caused the problem, therefore, administrative action should correct the problem, there appeared to be a bona fide emergency; therefore, the Mayor was placing on the record that he would authorize and direct the repair of the second pump at a cost of $2,475.

When Inspector Parr visited the Richmond Pump Station on the morning of December 7, 1976, he found that sewage was overflowing into Saddle Brook, as the remaining pump was not able to handle an increased flow. A sample, when analyzed, was polluting. The PVSC felt that legal action was necessary to insure that corrective action was immediately taken to eliminate the violation. The matter was referred to the PVSC legal department, where depositions were taken and a Civil Action Complaint was filed that afternoon in Superior Court. Service was made immediately.

Upon being served, the Borough called an emergency meeting on the evening of December 7, 1976 and unanimously passed the resolution to repair the pump it had previously defeated by a 4-3 vote.

On December 8, 1976, the Artesian Well Company installed the second pump (installation completed 3:45 P.M.), and the third pump was installed on December 10, 1976.

Inspector Parr checked the pumping station on December 13, 1976 and found all pumps repaired and operable and the overflow line dry, thus the violation was eliminated.

Violation and Elimination - Magullian Heating and Cooling Company, 619 Passaic Avenue, Kearny, N.J.
September 20, 1976 (J. McLaughlin)

On September 20, 1976 while making routine checks in Kearny, Inspector McLaughlin observed a grayish, opaque liquid flowing from Magullian Heating and Cooling Company, into a storm drain on Passaic Avenue and thence to the Passaic River. He investigated and found that an employee had just washed down an oil truck. Inspector McLaughlin then met with the owner, Mr. Robert Magullian, and informed him that the practice was illegal and must be stopped.

Inspector McLaughlin took a sample and notified PVSC Supt. F. D'Ascensio that he had the impression that Mr. Magullian did not believe him concerning the washwater being polluting.

Violation & Elimination - Magullian Heating & Cooling Co. (con't.)

Mr. D'Ascensio immediately wrote to Mr. Magullian and confirmed that the discharge was polluting as confirmed by laboratory analysis and therefore illegal to be discharged into a stream or storm sewer. Observations made by Inspector McLaughlin on September 24 indicated that trucks had not been washed at that location since the original violation. This area will be kept under observation.

Violation and Elimination - City of Newark, Pumping Sanitary Sewage into Meadowbrook Storm Sewer During Unclogging of Line.
April 9 - 22, 1976 (W. Fiore)

On April 9, 1976, Mr. Soldo of Belleville called Mr. D'Ascensio and reported that blockages in some Newark sanitary sewers were causing overflows of sewage into the Meadowbrook Storm Sewer. One of the blockages reported was in a 21" sanitary line located at the Erie Lackawanna Railroad near North 9th St. and the other was a partial blockage in an 18" line upstream of a manhole on the property of Stephen Crane Village, Franklin Ave. Mr. D'Ascensio contacted Newark and they stated they would take care of the matter. On April 15th the City of Newark was still attempting to unblock the lines but was having difficulty, especially with the 21" line. Inspector Fiore was directed to investigate and spoke to Mr. William Morris, Foreman of the Newark Public Works Department on that day concerning progress to unplug the lines. The City of Newark had been pumping sanitary sewage from the 21" line into the Meadowbrook Storm Sewer in order to lower the level in the manhole so that they could see the blockage and remove it. They were unable to divert the flow into a nearby 18" sanitary line since that was already full and the nearest downstream manhole in the 21" line was too far away to utilize. PVSC requested that this line be unplugged as quickly as possible so as to halt the pollution.

On April 22, Mr. Cuccinello reported that the 21" line was still blocked and the City of Newark continued to pump sanitary sewage into the Meadowbrook Storm Sewer. Mr. D'Ascensio then called Mr. Ray Nesto, Manager, Division of Sewers, at 9:15 a.m. and explained that the bypassing of the sanitary sewage into the Meadowbrook Storm Sewer which feeds Second River must be halted and an alternate method must be found to clear the line and eliminate this pollution as quickly as possible. Robinson Pipe Cleaners were then contacted by the City of Newark and by 11 p.m. that night the blockage, consisting in part of old railroad ties and large stones, was removed. The line was thus able to take the flow and the illegal bypassing was stopped. Mr. Friscia the Director, Department of Public Works, confirmed this in a letter dated April 26, 1976.

On the same day, April 26, the Belleville Department of Public Works assisted the City of Newark in unblocking the 18" line so that the pollution to the Meadowbrook Storm Sewer thence Second River from these causes was eliminated as of April 26, 1976.

Violation and Elimination - Northwest Bergen County Sewer Authority, 50 North Franklin Turnpike, Ho-Ho-Kus, N. J. (office)
January 13, 1976 (T. Costello)

This activated sludge sewerage treatment plant located in Waldwick is designed for 8.5 million gallons per day and serves the municipalities of Allendale, Ho-Ho-Kus, Midland Park, Ramsey, Waldwick and Wyckoff. Since the discharge of its effluent (approximately 4.6 M.G.D.) is into the Ho-Ho-Kus Brook, a tributary of Saddle River and thence the Passaic River, it comes under the jurisidciton of the Passaic Valley Sewerage Commissioners. The licensed operator is George Baer. This plant now operates under NPDES Permit #NJ0024813.

During 1976, the PVSC sampled the effluent from this treatment plant 49 times, of which only one sample was unsatisfactory. This was on January 13, 1976. Incidentally, this was the first unsatisfactory sample since June of 1972. Mr. George Baer, Supervisor, indicated to the inspector that they had been working on an experimental nitrogen removal system, and at times, while working with this, a surplus of activated sludge in aeration tanks exceeded the system return sludge pumping capacity for a short time, thus causing a temporary upset which lasted for about 20 minutes.

Violation and Elimination - Town of Nutley Recreation Department
August 16, 1976 (W. Fiore)

While making routine checks of Third River on August 16, 1976, Inspector Fiore observed an oily film in the river at the Passaic Avenue Bridge, Nutley. He traced the film upstream to Nichols Pond where he was told that while workers from the Recreation Department were treating some wood with creosote, a child in the area had accidentally knocked the can over and some of the contents ran into the pond. Inspector Fiore advised the men to exercise more care in the future.

Violation and Elimination - Town of Nutley, Third River
May 3, 1976 (M. Cordasco)

On May 3, 1976 Mr. Ben Sammara, Nutley Board of Health, reported green dye in Third River in the vicinity of Kingsland Manor on Kingsland Road, Nutley, N.J. Inspector Cordasco and

Violation & Elimination - Town of Nutley (con't.)

Mr. Cuccinello immediately proceeded to Third River and checked Third River in the vicinity of Rutgers Place, Centre Street and Franklin Avenue. They did notice a slight green color near the outlet of the Spruce Street Storm Sewer into Nichols Pond. Since the color appeared to be similar to fluorescein dye, the information was passed to Mr. Roy Stanley, Nutley Health Officer, and he was asked to check to determine if someone was dye-testing a line. Later that day, Mr. Stanley called Mr. Cuccinello and told him that the Nutley Sewer Department had in fact conducted a dye test on a broken 30" storm sewer at the intersection of Hillside Avenue and High Street. This storm sewer was about 100 years old and since there were no sewer drawings available, the dye and water were introduced into the sewer in order to trace the line. The dye then flowed into Nichols Pond from the Kingsland Road storm sewer outlet. Approximately 25 feet of pipe were replaced on May 4 and 5, 1976.

Violation and Elimination - Pantasote Company,
26 Jefferson St., Passaic, N.J.
September 21-22, 1976 (D. DeMarco & L. Cuccinello)

On September 21, 1976 Mr. Hardwick, Manager of Engineering, Pantasote, notified PVSC of a spill of white resin material from their plant which entered Weasel Brook. Supt. Cuccinello inspected the open culvert that leads from the plant to the brook. The bed of the brook was covered with the white material for about 100 yards downstream and white particles were floating downstream on the surface. Mr. Hardwick stated that they had a spill of the resin in the area where tank cars are unloaded into silos.

A settling pit located in this area contains an overflow line which drains to Weasel Brook. The settling pit collects storm runoff and allows solids to settle before the liquid overflows through this pipe to the brook. Unfortunately, the material had not been cleaned up and the evening rain had washed it into the settling pit,where it then flowed into Weasel Brook. A sample taken at that time was polluting.

Supt. Cuccinello and Inspector De Marco returned to Pantasote the next day and observed that the clean-up was still incomplete since some of the white resin remained in the brook. They then met with Mr. Hardwick and when they inspected other areas of the plant they discovered the white resin in two similar storm sewer settling pits. Mr. Hardwick was directed to clean these pits and take preventive measures to prevent a recurrence of this type of pollution.

On September 22 Mr. Hardwick wrote to Mr. D'Ascensio stating that he would install wier boxes on the overflow lines from all four settling pits in the plant to allow for a greater retention volume in case of a spill. He also set up a log book to record when the pits were cleaned to avoid solids buildup and he has met with the operating department personnel to emphasize the importance of cleaning up spills immediately to keep them from being washed to the settling pits.

Violation and Elimination - Paragon Cleaners
214 Midland Avenue., Saddle Brook, N.J.
August 17-24, 1976 (J. Parr)

On August 17, 1976, while checking a new sanitary sewer line being installed on Jefferson St., Inspector Parr observed an exposed 4 inch PVC sewer line coming from the rear of Paragon Cleaners.The pipe which handled sanitary waste from the bathroom, had several holes in it and although there was no flow from the holes at that time (since the line was not in use) it was obvious that any time the line would be used, sanitary waste would flow onto the ground. This waste could then find its way into a storm drain and pollute nearby Schroeder's Brook. Inspector Parr spoke to Mr. Sabastian Magarro, owner of the business, who stated that he was waiting for the landlord to have the contractor, Jack Martini, Inc., of Tenafly, N.J., connect to the new line. When Inspector Parr contacted the contractor he was informed by Mr. G. Zurlini that a problem involving money, which had delayed completion of the job, had been resolved and the job would be completed shortly. Inspector Parr cautioned Mr. Magarro of Paragon Cleaners not to use line until repairs were completed. On August 24 Inspector Parr observed that a new 4 inch line about 42 feet long, had been installed eliminating the possible violation.

Violation and Elimination - City of Passaic,
Lodi St. Storm Sewer
February 25, 1976 (R. Goldstein)

On February 25 at about 11 a.m. during a routine inspection of the Passaic River, Inspector Goldstein discovered a pollution entering the Passaic River from a 36-inch storm sewer on Lodi Street, Passaic. He immediately notified Mr. Sam Alaimo at the Passaic City Garage and a crew was dispatched to the area. The work crew found a blockage approximately 200 feet from the river on Lodi Street. They cleared it by rodding and at about 1:30 p.m., when the blockage was broken, the pollution ceased.

Violation & Elimination - City of Passaic, Monroe St.
Sanitary Sewer
July 13-14, 1976 (R. Goldstein)

At about 9:30 a.m. on July 13, 1976 while making a routine inspection in Passaic, Inspector Goldstein observed a large cave-in on Monroe St. between Parker Ave. and Dayton Ave. He immediately contacted Mr. Sam Alaimo, Passaic Sewer Department Foreman, who inspected the area. After excavating the area, Mr. Alaimo uncovered a break in the 8" sanitary line. This sewer line crosses over Weasel Brook at this point and there was evidence that some of the sewage had seeped into the Brook. The work crew returned on July 14 and completed repairs by replacing approximately 9 feet of clay pipe.

Violation and Elimination - City of Passaic - Mc Donald Brook at Entrance to Third Ward Park, Passaic, N.J.
November 19, 1975 - May 6, 1976 (R. Goldstein & D.DeMarco)

While conducting routine checks in the Hughes Lake area on November 19, 1975, Inspector Goldstein discovered a dry weather discharge entering Mc Donald Brook through a 12-inch storm line at the entrance to Third Ward Park, Passaic. He took a sample and analysis showed a slight sanitary pollution. His search for the source was hampered by the fact that the discharge was intermittent.

On December 11, 1975, Inspector Goldstein spoke to Mr. Sam Alaimo, Passaic Sewer Department, who told him that the pipe was supposed to drain storm water from a small yard area near Forrest Court, and was not expected to have a dry weather flow. The line was blocked temporarily with sand bags hoping to find the source of the intermittent flow. Individual homes in the area were dye tested in order to locate the source of the intermittent pollution. There was no discharge observed as of the end of December.

On January 8, Mr. D'Ascensio wrote to Mr. Ralph Sandor, Passaic City Engineer, requesting information on when the dye test would be completed. On January 29, Mr. Sandor informed Inspector Goldstein that they were having difficulty in locating the source of the intermittent flow.

On March 15 Mr. D'Ascensio spoke to Mr. Stanley Spolnick, Acting Director of Public Works, regarding progress of this project. Mr. Spolnick stated that Passaic had gotten a positive dye test from the homes on Forrest Court. However, when they had rodded the line in order to determine the length of the pipe and they discovered that the line was much longer then they had expected and therefore drained a much larger area than originally thought and the expanded areas would have to be checked.

When nothing further was reported to PVSC, Mr. D'Ascensio wrote to Mr. Sandor on April 22 requesting a status report. Inspector De Marco then spoke to Mr. Alaimo in April 30 and was informed that the previous information on the dye tests was incorrect. None of the four homes on Forest Court gave a positive test. The positive dye test came a week later when they tested the sanitary sewer. The quantity of the flow was so slight that they decided to block off the drain pipe to Mc Donald Brook.

The City of Passaic sealed the line with cement on May 6, 1976 thus eliminating the pollution.

Violation and Elimination - Passaic Textile Screens, Inc.
82 Industrial East, Clifton, N.J.
April 29, 1976 (J. Parr)

On April 29, 1976, at about 12:30 p.m., Mr. Stuart Palfreyman, Clifton Health Officer, notified Mr. Cuccinello of an anonymous call he received complaining that someone was dumping oil into a storm sewer at Passaic Textile Screens, 82 Industrial East, Clifton. Supervisor Cuccinello proceeded to the company where he was met by Inspector Parr and together they were informed that Mr. Frank Fink, a fuel oil contractor from Clifton, had removed a 2000 gallon oil tank from the ground. Although he stated he had attempted to empty all the oil out of the tank before lifting if from the ground, he failed, for when the tank was raised and placed on a flatbed truck some oil and water ran into the driveway out of four holes in the tank. The material flowed down the driveway and into a storm sewer catch basin which feeds Mc Donald Brook. Before driving off, the contractor drove wood plugs into the holes to prevent further leakage. Mr. Cuccinello then directed Mr. Ernest Weber, President of Passaic Textile Screens, to remove the oily material from the catch basin and clean the oil off the ground. The oil and water removed was placed in a 55 gallon drum for removal by the contractor. Mr. Cuccinello and Inspector Parr then checked Mc Donald Brook and Hughes Lake where they found no visible evidence of oil. Inspector Parr rechecked the area on April 30 and again saw no oil in the brook or lake.

Violation and Elimination - Peerless Tube Company,
56-76 Locust Ave., Bloomfield, N.J.
May 5 - 7, 1976 (W. Fiore)

On May 5, 1976, Mr. Robert Dobrowolski, Sanitarian from the Bloomfield Board of Health, called Mr. D'Ascensio to report a chemical spill into Second River from Peerless Tube Company, 56-76 Locust Avenue, Bloomfield, N.J. According to Mr. Dobrowolski, employees of Peerless Tube had dumped waste Oakite Stripper M3 from drums onto the sidewalk. This highly alkaline, corrosive material then flowed through the storm sewer to Second River. He took samples which, when analyzed by the PVSC laboratory the following day, had a pH of 10.5 confirming the fact that it was polluting. Before notifying PVSC of the spill, Mr. Dobrowolski directed Mr. Richard Potts, Vice President of Manufacturing, to clean up the spill. According to Mr. Potts,Peerless Tube had a 7 year old contract with Perk Chemical Company of Elizabeth, N.J., to periodically remove all toxic wastes and a pickup was scheduled for May 7, 1976.

Employees picked up the material, then thoroughly hosed down the area. Therefore, when Inspector Fiore checked the plant with Mr. Dobrowolski on May 6 nearly all evidence of the pollution was gone. Mr. Dobrowolski reported that the sidewalk and street were scarred on Locust Avenue where the material was

Violation & Elimination - Peerless Tube Company (con't.)

spilled. This seemed to indicate that this was not the first time this was done. He did observe some sediment in the brook and directed Mr. Potts to remove it. This was done on May 7, thus eliminating the pollution. Since this was a deliberate, pollutional discharge (as opposed to an accidental one) PVSC referred this matter to NJDEP to determine if the company should be fined.

Violation and Elimination - S.B. Penick and Company, 540 New York Avenue, Lyndhurst, N.J.
February 19 - September 8, 1976 (F. Cupo & J. McLaughlin)

On February 19, 1976, while making a routine investigation of the discharge from this plant to the New York Avenue storm sewer, thence to the Lake Avenue storm sewer to the Passaic River (NPDES Permit #NJ0003531), Inspector Cupo found the discharge yellow in color, and a sample when anlayzed had a C.O.D. of 261 mg/l and a T.O.C. of 85 mg/l (turbidity 115 J.T.U.)

Mr. MacDonald, Manager, Operations Compliance, wrote to Mr. Lubetkin on March 1 and enclosed a copy of a report from S.B. Penick to USEPA detailing their inability to eliminate the dry weather discharge to the New York Avenue Storm Sewer. He explained that the flow could emanate either from infiltration, an unrecorded connection within the plant, or drainage from outside the plant which followed the right-of-way of the nearby Erie Lackawanna Railroad thence flowed through the plant and into the New York Avenue Storm Sewer. Mr. Grant, Plant Manager, reaffirmed this in a letter to Mr. D'Ascensio on March 2, 1976. They also pointed out that there was less total pollution than previously but was more obvious since, by eliminating the cooling water which was recycled, the concentration of the pollution increased. They indicated a target date of October 1976 to halt all dry weather flow.

March 12 PVSC personnel met with S.B. Penick in an attempt to localize possible points of infiltration or inflow of the pollution. Mr. Grant stated that Penick intended to conduct a television scan of the storm sewer in one area where infiltration had already been detected. Mr. MacDonald furnished Mr. D'Ascensio with an updated storm sewer map on March 16.

Samples taken on March 16 showed that the pollution originated only from Penick property. On March 18 and 25 additional samples were taken and these indicated that the pollution emanated from at least three different sources within the Penick complex. On March 25, Mr. Butera informed Chief River Inspector Cupo that the television survey of the plant sewers was being conducted by the Robinson Pipe Cleaning Co. of Newark, a division of National Power Rodding. Mr. D'Ascensio wrote to Mr. Grant on April 5 requesting a status

Violation and Elimination - S.B. Penick & Company (con't)

report. Mr. Grant replied on April 12 stating that there were two areas near building 41 where it was possible for process waste to leak into the ground. These leaks were sealed.

Other points were found where infiltration occurred. These were to be grouted and another line draining into the storm sewer was plugged.

On May 26 Mr. Butera reported that the television survey of approximately 1400 feet of sewer (varied from 8" to 30") had been completed. He stated that as a result of the survey he submitted a request to management (which was later approved) to have all the pipe joints sealed at an estimated cost of $14,000. in order to halt the infiltration.

On June 21 Mr. Grant wrote to Mr. D'Ascensio stating that Penick expected to begin grouting the two main sections of the storm sewer that week. They also found that the line which was connected to the 30-inch main storm at sample point #5 was dead and therefore they were able to disconnect it. He stated that an internal check on the some of the process waste line would start July 2, 1976 during the schedule two week plant shutdown. Mr. Grant also informed PVSC that Penick had reduced the flow rates in the storm sewer to between 2500 and 10,000 GPD with a total B.O.D. of 2 to 5 lbs. per day. The lines were first cleaned by Mobile Dredging and Pumping Company of Exton, Pa. and then Video Pipe Grouting Co., Inc., of Chicago, Ill., began grouting the storm sewer on June 24. By June 30 the grouting had progressed from the 8 inch lines through the 15 and 18 inch lines to the 24 inch line.

All grouting of the sewers was completed at the end of July. In August the catch basins were checked for leaks and where infiltration was detected they were grouted. The sealing of the lines and catch basins within the plant has reduced the flow in the storm sewer by about 75% to about 2500 GPD. Mr. Butera stated to Inspector McLaughlin, on August 24, that he felt that the balance of the dry weather flow was coming from the area adjacent to the Erie-Lackawanna property. The volume of flow continued to diminish and by September 8 there was no flow. Mr. Grant wrote to Mr. D'Ascensio and stated that a representative of USEPA visited the plant on September 28. According to Mr. Grant, if S.B. Penick was able to maintain a dry system, they could apply to USEPA to drop their NPDES permit since there was no direct discharges. Based on observations made by Inspector McLaughlin, this violation was then considered eliminated.

Violation and Elimination - J.L. Prescott Co.
27 8th St., Passaic, N.J.
August 31, 1976 (N. Darmstatter)

On August 31, 1976 at approx. 8:45 A.M., while crossing the 8th St. Bridge, Wallington, Supervisor F. Cupo observed large patches of white foam in the Passaic River. On closer inspection he found the foam coming from a 6 inch outlet from the J.L. Prescott Co. He contacted the plant manager, Mr.R.E. Maloney who felt the foam was caused by "agitation". Mr. Cupo pointed out that agitation, by itself would not produce foam and that a detergent type material was probably present. A sample of the discharge was taken, however the laboratory was not informed to check for foaming agents and the remaining ordinary pollution tests (C.O.D., T.O.C. etc) were satisfactory. A defoaming agent was injected and the foam subsided almost immediately.

Mr. Maloney was directed to find the cause of the foam and have it halted.

At 1:30 P.M. the same day, Inspector Darmstatter revisited the site and was informed that the following steps had been taken.

1. Water to outlet shut off.
2. Dye injected into various lines.
3. Re-opened outlet
4. Stationed employee at outlet at river to observe if dye appeared.

It was reported that no dye or foam appeared. The company had not been able to locate the source of the pollution but they said they would continue to investigate. The outlet discharges cooling water under NPDES permit # 0002232 and subsequent observation indicated no further pollution.

Violation and Elimination - Public Service Electric and Gas Company, Essex Generating Station, Newark, N. J.
January 14, 1976 (J. McLaughlin)

On a routine inspection, Inspector McLaughlin, accompanied by Supervisor F. D'Ascensio, observed a maintenance crew from Public Service pumping a black oily liquid from a manhole near their Essex Generating Station to the ground where it flowed to Lawyer's Ditch, a tributary of the Passaic River. They ceased operation when directed to by PVSC personnel.

On January 21, 1976, Mr. Lubetkin wrote them a letter that this had happened in the past, and on June 19, 1975, Mr. Maginn, Jr. of the Essex Division had promised that in the future a manhole cleaning tank truck would accompany the maintenance crew and discharge the polluting material into skimming facilities located in Irvington, and at their Roseland facilities.

Violation & Elimination - Public Service Electric & Gas Co. Essex Generating Station (con't.)

On January 27, 1976, Mr. J. F. Schwanhausser, Division Superintendent of Elizabeth, replied, apologizing for not effectively controlling the transmission of this material, and he informed PVSC that all personnel of both divisions have been instructed in proper procedures so as to avoid repetition of this type of incident.

Violation and Elimination - Ridgewood Pollution Control Plant, Prospect Street, Glen Rock, N.J.
May 4, 1976 (T. Costello)

The Village of Ridgewood has a pollution control plant which handles sewage from this village. This activated sludge plant has a design capacity of 5.0 MGD and treats approximately 3.2 MGD.

Since the effluent from this plant discharges into Saddle River, a tributary of the Passaic River, it comes under the jurisdiction of the PVSC, and PVSC personnel sample this effluent on a routine basis. The licensed operator is Mr. John La Grosa. The sample taken on May 4 was polluting, having high COD and TOC. Inspector Costello investigated and reported that treatment records showed slightly high suspended solids. Chief Operator Lyle Gillow could offer no explanation for the results. The subsequent samples taken by the PVSC were all satisfactory.

It is to be noted that this was the only sample of 51 taken in 1976 which was rejected by PVSC, therefore we shall assume a short time temporary upset and the violation was considered eliminated.

Violation & Elimination - The Seton Company, 849 Broadway, Newark, N.J.
June 8-9, 1976 (F. Cupo & J. McLaughlin)

At about 10 a.m. on June 8, 1976 PVSC received a complaint of a white substance discharging into the Passaic River near Verona Avenue, Newark. Mr. Cupo investigated and found that there was a blockage in the regulator chamber on Verona Avenue. The regulator then diverted the flow into the Passaic River, causing the pollution.

Since our records showed that the Seton Company had been the cause of a similar pollution in October 1971, Mr. Cupo visited the company located at 849 Broadway, Newark. He spoke to Mr. Peter Van Vleck, President, and showed him the polluting discharge. By 12:30 p.m. the PVSC line crew had removed the material causing the blockage. A cow hide which had entered the sanitary sewer from Seton Company had clogged the line at the regulator chamber and caused the problem.

Violation & Elimination - The Seton Company (con't.)

Investigation revealed that in 1972, after the previous problem, the Seton Company had installed bar screens to keep skins, etc., from entering the sanitary sewer. Mr. Jamison, Plant Engineer, reported to Inspectors McLaughlin and Colello that one of the four bar screens had malfunctioned and had been removed on May 28 and sent out for repairs. The drain was thus unprotected and on June 8 the pollution occurred. On June 9 the screen was returned and installed. Since this type of problem could occur again at any time a bar screen was removed, Mr. D'Ascensio wrote to Mr. Van Vleck on June 24 asking what action Seton Company intended to take to prevent a recurrence and suggested that a spare bar screen be kept on hand to replace any taken out for repairs. Mr. Jamison replied that Seton Leather Company had constructed a spare screen to be used should any screen need replacement.

PVSC billed and Seton Company paid $177.18 for PVSC labor costs in removing the cow hide from the line.

Violation and Elimination - Standard Dyeing and Finishing Co. Inc. 1 Van Houten St., Paterson, N.J.
September 14-20, 1976 (M. Tomaro)

Leak

On September 14, 1976, during a routine inspection of the Passaic River in Paterson, Inspector Tomaro observed a blue colored liquid seeping into the Passaic River at the rear of the Allied Textile Print Company, 1 Van Houten St. Upon investigation he was informed by Mr. Sherb, Allied Plant Engineer, that the seepage was coming from a leak in a 16 inch industrial sewer line used by Standard Dyeing and Finishing Co. The material seeped into the river under the Allied Textile cooling water line. Mr. Wax, owner of Standard Dyeing and Mr. Sherb of Allied, at a meeting with Inspector Tomaro, agreed to excavate the line in order to make repairs. Part of the line was exposed on September 15. A delay arose later in the day due to a disagreement between the two companies over the responsibility of each. Inspector Tomaro got Mr. Wax and Mr. Sherb together and pointed out that the pollution had to be halted. Work then continued on September 16 and on September 20 a two inch hole in the line was sealed eliminating the violation.

Violation and Elimination - Tenneco Chemicals, Inc.
290 River Road, Garfield, N.J.
September 1-2, 1976 J. Perrapato & J. Parr)

On September 1, 1976 at 5 P.M. PVSC received a complaint of suds in the Passaic River caused by Tenneco Chemicals. Inspectors Perrapato and Parr investigated, arriving at the plant at 5:45 P.M. and requested the Security Guard call Mr. La Bue, Works Manager

Violation & Elimination - Tenneco Chemicals (con't.)

back to the plant. Mr. La Bue returned to the plant and ordered all valves to the outlet pipe closed, stopping the violation. They returned the following morning and met with Mr. Howard Schrenk, Supt. of Maintenance and Mr. Douglas Jacobsen, Plant Production Supt. These men explained that prior to the pollution Reactor No 1 (a 2000 gallon vessel) located on the fourth floor, was being cleaned with a standard liquid detergent. When they drained the solution to the sanitary sewer the high flow rate overloaded the sewer on the first floor. This caused the sewer to backup and the soapy water overflowed off a loading platform, into a yard storm drain and then into the Passaic River. Mr. Schrenk stated that they would use a separate hose for draining these tanks until they check for blockage in the sewer line. A sample taken on September 8 from the storm sewer was acceptable.

Violation and Elimination - Tungsten Products Corp.
185 Scoles Ave., Clifton, N.J.
April 1-7, 1976 (J. Parr, L. Cuccinello)

On April 1, 1976 PVSC received a call from Mr. Robert Holster, Director of Community Affairs, City of Passaic, concerning a pollution of Mc Donald Brook and Hughes Lake. Supervisor of River Inspectors Cuccinello and Inspector Fiore immediately proceeded to the area and met with Mr. Holster and Mr. Sam Alaimo, Passaic Superintendent of Sewers. They noticed an industrial odor and a slight oily substance in Mc Donald Brook and by lifting manhole covers, checking catch basins, and following the odor upstream, they traced the pollution to Tungsten Products, Inc. (a Division of Duro-Test), 185 Scoles Ave., Clifton. The plant is located west of Dumont Election Tubes Co. plant.

They contacted the Plant Manager, Mr. Thomas Emidy, and proceeded to the west end of the plant. At that location, next to the Erie Lackawanna Railroad right of way, the company had stored several drums containing a mixture of Xylol, Butanol and used vacuum pump oil. This material was stored until removed by Gaess Environmental Service of Passaic every few weeks. However, it was obvious that some of this waste material had spilled onto the ground and flowed into a nearby catch basin. This catch basin was piped into a storm drain which went through the Dumont property thence to Mc Donald Brook on Scoles Avenue (where McDonald Brook is piped underground). Mr. Emidy was directed to clean the area so that no further material could reach the catch basin. Inspector Parr returned on April 2 and 7 and determined that the area was clean and free of polluting material. Although Mr. D'Ascensio had not received a reply to his letter to Mr. Emidy requesting information on action taken by Tungsten to avoid future pollutions, the violation is considered eliminated as of April 7, 1976. On August 4, Mr. Emidy wrote to Mr. D'Ascensio and stated that Tungsten Products had constructed a retaining wall around the storage area to contain any spillage. PVSC inspected the installation on August 6 and found it acceptable.

Violation and Elimination - Union Building and Construction Corporation, 650 Valley Road, Clifton, N. J.
October 22 - December 13, 1976 (L. Cuccinello and T. Costello)

On October 22, 1976, PVSC received a complaint of white material in Pearl Brook from Mr. S. Ditzig, Clifton Sanitarian. Assistant Superintendent Cuccinello went to the area and checked Pearl Brook at Valley Road and Route 46, Clifton. He observed a white discharge flowing into the brook from a 36 inch storm sewer on Valley Road.

He then traced the discharge to a storm sewer catch basin on Old Notch Road. A large volume of water containing the white material flowed down the mountain and into the catch basin. When Mr. Cuccinello climbed the mountain, he observed that the material came from large collecting pits of the Union Building and Construction Corporation. A sample taken at that time was polluting.

Mr. Cuccinello then met with Mr. Ferguson, Plant Manager, and informed him that the collecting pits were not settling properly and that as a result, the stone dust was washed into Pearl Brook causing the pollution. Mr. Ferguson stated that he would clean out the pits and repair the damaged dam in order to increase the retention time.

Pollution again occurred on November 29 when a complaint was traced back to this company. No promised work had been done but the promise was repeated.

On December 8, Mr. D'Ascensio wrote to Mr. Ferguson, and directed him to cease the violation at once and reply to the letter indicating what action he intended to take to eliminate the violation. On December 13, Inspector Costello visited Union Building and met with Mr. Ferguson, who informed him that on December 8 the company had completed the construction of a new settling pit. The pit is 30 ft. by 45 ft. and 3 ft. deep. It is expected that rain run-off that picks up the stone dust will collect in the pit and the dust would settle. Any clear overflow will then discharge from a 12-inch outlet and into Pearl Brook via the 36-inch storm sewer on Valley Road. PVSC will continue to monitor any discharge.

Violation and Elimination - Warren Brothers Company
Planten Ave., Prospect Park, N.J.
September 21, 1976 (J. Perrapato)

On September 21, 1976, while making routine checks of the Passaic River in Prospect Park, Inspector Perrapato observed an oil slick entering the Passaic River from the 6th Ave. storm sewer outlet at the bridge. He went to Warren Brothers Company, about 0.7 miles away to check their settling pit which collects storm runoff before it drains to the Passaic River via this storm sewer. After this check he contacted Mr. J. Stampore, Plant Forman and directed him to remove the oil from the water surface in the pit. Employees first spread oil absorbent bags sealing the two outlets and containing the oil. They then removed the oil by skimming and scooping it from the surface to be disposed of with their own waste oil. The work was completed by 4 P.M. that day. Mr. Stampone believed that some outside truckman had spilled the oil into the pit since he felt it did not come from their operation as they do all their vehicle work inside their own garage.

PART III

VIOLATIONS

The following are reports on polluting discharges still in existence as of the end of 1976 into the streams and storm sewers under the jurisdiction of the Passaic Valley Sewerage Commissioners, together with information on what is being done to abate such pollution and the name of the River Inspector assigned to the case.

Violation - Ashland Chemical Company, 221 Foundry St., Newark, N.J.
May 6 - December 31, 1976 (J. McLaughlin & J. Colello)

On May 6, 1976, a PVSC employee, while driving to work, saw personnel apparently from Ashland Chemical Co., 221 Foundry St., Newark, pumping a liquid out of a storm sewer catch basin on Avenue P and into drums. He notified the Sanitary Control Department and Inspector McLaughlin was directed to investigate. He arrived at Ashland Chemical later that morning and took a sample from the catch basin and later spoke to Mr. Donald Moore, Plant Manager.

Laboratory analysis showed that the material was highly flammable and potentially explosive. The catch basin, located on Avenue P, discharged into the Roanoke Avenue storm sewer, owned by the City of Newark, thence into the Passaic River.

It appeared that the dangerous material came from the tank truck wash area where the tank trucks were brought for steam cleaning. Spills occurred when drivers disconnected hoses which had been connected from the steam cleaning equipment to the truck.

Condensate and washed out solvent would spill on the ground and flow into the catch basin thence Roanoke Avenue storm sewer. When the situation was pointed out to Mr. Moore, he stated that Ashland was aware of the hazards and was about to construct a means of containing any future spills. The plans included a blacktop curbing 6" high around the tank truck wash rack, the relocating of the existing catch basin which feeds Roanoke Avenue Storm Sewer away from the area, and the construction of a large shallow sump under the wash rack that would collect future spills and direct them into an existing 2,000 gallon storage tank located in the ground. The contaminated material would then be pumped into drums and disposed of by Mr. Frank Fernicola of Ocean Gate, N.J.

Work started and by May 14 the 6" asphalt retaining embankment to contain the spillage had been constructed.

Violation - Ashland Chemical Company (con't.)

Inspector McLaughlin reported that the contractor, Brookside Contractors of Union, N.J., started grading the yard area in early July but was still awaiting bids on the balance of the construction.

On November 12, Mr. William Dorr, District Manager, wrote to Mr. D'Ascensio and stated that on October 25 Ashland received the contracts for the modifications to the loading rack from the Brandstatter Concrete Company. On November 2 the contracts were sent to company headquarters in Columbus, Ohio for final review and signatures. He stated finally that they expected that the completed contracts would be returned shortly. Mr. Moore informed Inspector Colello at the end of the month that the material for the wash rack was on order and the target date for completion was the end of December.

By December 31, the spill tank had been installed. However, the piping had not been completed.

Although no further violation had been noted since May 6, 1976, this problem will not be considered eliminated until all indicated preventative measures have been completed.

Violation - Town of Belleville, Chestnut Street Storm Sewer
April 13 - December 31, 1976 (M. Cordasco)

During the investigation of a pollution of the Chestnut Street Storm Sewer in March (see this report, page 129), Inspector Cordasco encountered a dry weather flow. He sampled it on April 7 and it was non-polluting. Subsequent samples taken on April 13, 21, and 29 were polluting, indicating that an intermittent pollution was present. Inspector Cordasco started working with Mr. Soldo, Belleville Superintendent of Public Works, in an attempt to locate the source of the pollution.

On May 13, 1976, Mr. Cuccinello, Inspector Cordasco and Mr. Jack Gilbert, Belleville Sewer Department Foreman, conducted a sampling survey at five points. Laboratory analysis of these samples indicated that the pollution originated in the line between a manhole located at 48 Liberty Avenue and one located at 77 Chestnut Street. The storm sewer runs diagonally between these two streets and crosses a residential area. PVSC's Mr. D'Ascensio forwarded a copy of the laboratory analysis to Mr. Soldo on May 18 and requested an abatement schedule. A thorough inspection was scheduled for May 26 but cancelled when Mr. Soldo stated he had an emergency.

On June 8, Inspector Cordasco, Mr. Soldo and a work crew from the Town of Belleville walked the storm sewer from its outlet into Third River to Liberty Avenue looking for the

Violation - Town of Belleville, Chestnut St. Storm Sewer (con't.)

source of the pollution. They uncovered two suspicious connections which were flowing into the storm sewer. One was an 18-inch storm sewer line from a catch basin on Madison St., the other was a six-inch line from a catch basin in the rear yards of two homes on Jefferson Street, number 59 and 63.

Three samples were also taken on June 8 and when analyzed by the laboratory showed that fecal coliform pollution was present. It appeared that there was infiltration into the 18-inch storm sewer. This information was passed verbally to Mr. Soldo by Mr. D'Ascensio and confirmed in writing on June 16.

Mr. Soldo had stated he intended to conduct dye tests on the homes in the area in an attempt to locate the points of infiltration. PVSC was informed that on September 22, dye was introduced into the sanitary sewers in homes at 71, 72, 75 and 76 Jefferson St. and 80 Madison St. with negative results.

Hearing nothing further, Mr. D'Ascensio wrote to Mr. Soldo on November 15, 1976 and requested a status report. Mr. Soldo had not replied as of December 31, 1976.

Violation - Town of Belleville, Second River Joint Meeting
July 15 - December 31, 1976 (M.Cordasco & W.Fiore)

During one of the routine check surveys of Second River from the confluence of Toney's Brook in Watsessing Park, Bloomfield, to Franklin Ave., Belleville, taken on July 15, 1976, a pollution was discovered between the Mill St., Montgomery St. intersection at the Bloomfield, Belleville line, and Franklin Ave., Belleville. Mr. D'Ascensio sent this information to Mr. James Soldo, Belleville Superintendent of Public Works on July 21 and requested he investigate.

On July 27, Inspector Fiore met, in the field, with Mr. Soldo and Mr. Decher of the Second River Joint Meeting. They met at the point (about 300 feet west of Franklin Avenue) where Belleville has two twelve-inch sewers coming from Mill Street entering the 24 inch Joint Meeting Sewer at a drop manhole located in a stone culvert under a railroad trestle going over Second River. Dye was inserted in all three sewers and after a period of time the red color was observed seeping through the masonry. There was no significant flow, just an oozing, but probably enough to give the fecal coliform count that had been observed. Both Mr. Soldo and Mr. Decher were made aware of the situation and were requested to take corrective action.

Violation - Town of Belleville, Second River Joint Meeting (con't.)

PVSC has been informed that repairs will be difficult to make since the stone culvert is very old and the use of heavy equipment may cause structural damage and might cause the culvert to collapse.

On October 19, Mr. D'Ascensio wrote to Mr. Decher and requested a status report. Mr. Decher replied on October 21 and confirmed that, due to the age of the culvert (it was built in 1825), extreme care would have to be taken and the work would have to be done by hand. He further stated that since it was impossible to tell whether it was a Belleville sewer that was leaking or the Second River Joint Meeting sewer, he had met with the Belleville Town Engineer and Mr. Soldo and they agreed to make a joint effort to complete repairs as soon as possible.

There was no change as of December 31, 1976.

Violation - Biocraft Laboratories, Inc., 12 Industrial Way, Waldwick, N.J.
June 2, 1975 - December 31, 1976 (W. Fiore)

On October 18, 1976, PVSC received a complaint of suds in Ho-Ho-Kus Brook. Inspectors Fiore and Perrapato who were directed to investigate, traced the sudsy material upstream from Dale Brook Finishing Co. and into Waldwick. They then checked Whites Pond upstream with negative results. However, when they reached Allendale Brook at Industrial Way, they detected an industrial odor where a storm sewer entered the brook.

On October 19 Inspector Fiore returned and took a sample from this storm sewer and laboratory analysis confirmed that it was polluting.

Since Biocraft Industries was closest to this storm sewer, Inspector Fiore checked with Mr. Mazzacca, Plant Manager, and informed him of the pollution. Inspector Fiore learned that previously the sanitary line from Biocraft had leaked and their waste had found its way into the storm sewer through open joints. At that time, they were cited for pollution by NJDEP. Mr. Mazzacca explained that, although they had made repairs, he felt that the material already in the ground continued to leach into Allendale Brook.

A sample taken by Inspector Fiore from the storm sewer coming from the building of the Biocraft Laboratories on October 29, 1976 was very high in C.O.D. and T.O.C.

Mr. D'Ascensio of PVSC contacted NJDEP and spoke to Mr. Greg Isbrecht about the problem.

Violation - Biocraft Laboratories (con't.)

Mr. Isbrecht was very cooperative and sent a chronological summary of events from June 2, 1975 when NJDEP first detected a pollution of Allendale Brook by Biocraft.

A series of samples, studies, letters, conferences and finally the issuance of an administrative order by NJDEP in June 1976 directed Biocraft to submit a comprehensive groundwater decontamination program within 30 days and within 30 days initiate and continue the NJDEP approved groundwater decontamination program until satisfactorily completed.

Mr. Isbrecht, in the letter to PVSC dated November 30, 1976, further stated that Biocraft had positively responded to the June 1976 Administrative Order and had recently submitted the required groundwater decontamination program and that the NJDEP was presently evaluating the latest information before issuing any further directives to Biocraft.

Company officials met with NJDEP on December 16 to discuss the proposed groundwater decontamination program. Some minor changes were recommended by NJDEP and as of December 31, 1976, a Consent Order was being prepared by NJDEP.

In view of the fact that NJDEP has been actively and effectively handling this problem, PVSC is only reporting continued progress and details as they receive them from NJDEP.

Violation - Town of Bloomfield - Franklin Street Storm Sewer
August 12 - December 31, 1976 (W. Fiore)

PVSC routinely samples storm sewers that discharge during dry weather to check for pollution. On August 12, 1976, while making a routine inspection of Second River, Inspector Fiore observed a dry weather flow entering Second River from a storm sewer on Franklin St., Bloomfield. He took a sample which, when analyzed by the PVSC laboratory, was polluting. On August 18, while attempting to locate the source, he again sampled the line but this time it was not polluting. On August 25, a third sample was polluting, indicating that an intermittent pollution of Second River was present. Mr. D'Ascensio wrote to Mr. Sol Friedman, Bloomfield Town Engineer, on August 26 informing him of the intermittent pollution of Second River by this storm sewer and requested an investigation by the town.

When he received no reply, Mr. D'Ascensio wrote to Mr. Friedman again, on October 5, and requested a status report. Mr. Friedman replied on October 12 that the matter had been referred to the Health Officer and Public Works Superintendent and was still under investigation.

Violation - Town of Bloomfield - Franklin St. Storm Sewer (con't.)

On November 3 Mr. Friedman wrote to Mr. D'Ascensio and suggested that additional tests be made to narrow down the problem since his departments could not locate the source of the pollution.

There was no change as of December 31, 1976.

Violation - City of Clifton - Athenia Storm Sewer
September 1970 to December 31, 1976
(F. Wendt, J. Parr, W. Fleming, and T. Costello)

The discharge from this sewer which enters into Weasel Brook, near Fornelius Avenue and Lewis Place, contained a significant amount of coliform, although generally not polluting in other parameters. The City of Clifton had supplied the Commissioners with drawings, showing the location of manholes in this sewer and connecting sewers. On Wednesday, July 28, 1971, samples were taken at ten locations along the path of this sewer and analyzed in an attempt to learn the source of the pollution. Unfortunately, unknown to the Commissioners' personnel, there were two parallel storm sewers in this area. These sewers are interconnected at certain points, but these were not shown on the drawings. Mr. Lubetkin visited Clifton's engineering department on August 25, 1971, to discuss these sewer locations. Subsequently new drawings were supplied, showing both sewers.

Samples were taken on September 23, but no definite pattern could be ascertained to locate the source of pollution. During October, the storms prevented proper investigation. During November and December, further samples were taken to discover a flow pattern.

On January 3, 1972, while investigating a complaint of a sewer back-up, the Clifton Sewer Department found a break in an 8-inch sanitary line at the corner of Orono and Sargeant Streets, and some sanitary sewage was entering the Athenia Storm Sewer. The broken line was replaced, work being completed on January 7, 1972.

Since subsequent samples indicated pollution (coliform), although lower than before, Mr. Lubetkin wrote to the City of Clifton on February 14, 1972, suggesting that the best way to trace the source of pollution would be the hiring of a laboratory to undertake the work.

On May 19 and again May 22, 1972, letters were sent to the Passaic Valley Sewerage Commissioners concerning the Clifton

Violation - City of Clifton - Athenia Storm Sewer (con't.)

pollution. Mr. Holster, City Manager, wrote that the City Health Officer, Stuart Palfreyman, was being assigned with men of the Department of Public Works to systematically check the Athenia Storm Drain System in an effort to locate the source of trouble. He felt that there may be some old cesspools which may leak at time of high water table into the storm system.

Mr. Lubetkin spoke to Mr. Holster on the telephone during February 1973, reminding him that progress on the elimination of this pollution was slow. Mr. Holster promised to attend to this at once.

On March 6, 1973, Mr. Lubetkin requested an up-to-date report on the situation from the City of Clifton. On March 14, Mr. J. Jamieson, Engineer from Clifton, replied, stating they had examined the sewer visually and had not found any significant infiltration. He said they were considering a program of chlorine disinfection to aid them in their search. He also said they would continue to strive to correct this problem.

On May 31, Mr. Jamieson called Mr. Lubetkin stating that they had not been successful in locating the source of the pollution and their people think the source may be animal. Mr. Lubetkin told him that on February 28, the PVSC analyzed for both fecal coliform and fecal steptococcus, and the ratio (3.9/1) indicated a high probability of the waste being human waste. Mr. Lubetkin sent Mr. Jamieson a copy of this report, together with a table from EPA literature on Water Microbiology. Mr. Lubetkin stated in his letter that the pollution had been on the PVSC list since September, 1970, and the PVSC felt that the City of Clifton should make every attempt to find and halt the source of the pollution. Mr. Lubetkin suggested that if City personnel cannot do this work, then an outside consultant should be hired to perform the work.

On June 12, 1973, Mr. Jamieson sent a letter to Mr. Holster (copy to Mr. Lubetkin) stating that their Department of Public Works had discovered (and repaired) an 8" sanitary sewer at the intersection of Samuel Avenue and Speer Avenue that had four defective leaking joints. Mr. Jamieson stated that he felt this was a major source of pollution into the Athenia Storm Sewer.

On June 27, Mr. Lubetkin wrote to Mr. Jamieson informing him that samples taken after the repair still indicated a high fecal coliform count (although less than before); therefore, it appeared that there are other sources of pollution still to be found and corrected.

Violation - City of Clifton - Athenia Storm Sewer (con't.)

On August 13, 1973, Mr. Lazzio and Mr. Lubetkin met with representatives of Clifton headed by Mr. Lorenz to discuss this matter. When Mr. Lubetkin discovered they were working from old surveys (September 1971; June 1972; and August 1972), he suggested that an up-to-date survey be taken, and a scientific approach be used to locate the source of pollution. Mr. Lubetkin said that the PVSC laboratory would be glad to help with analytical work, but that it was the responsibility of the City of Clifton to do the field work.

On September 10, 1973 Mr. Lubetkin wrote to Clifton outlining the discussions of the August 13 conference, and reiterated that if Clifton was unable to solve the problem with their own forces, it was incumbent upon them to hire outside consultants to aid them to abate this pollution.

On October 2, Mr. Lubetkin wrote to Clifton requesting a report on progress, On October 15, Mr. Holster replied, enclosing a report in which they state they are identifying and tracing all lines involved through the streets, etc. in a "scientific approach" to the problem. As soon as all lines are identified and plotted on a schematic with flows, they will go into a concentrated sampling program to pinpoint the source of pollution.

Mr. Stuart Palfreyman (Health Officer of Clifton) submitted a report giving the status as of the year's end. He stated that they had discovered a number of situations which required further investigation, such as:

(a) A suspected fissure of a sanitary line lying adjacent to storm lateral on Van Houten Avenue.
(b) Another suspected fissure or blockage on Spencer Avenue.
(c) Numerous blockages were found along the line that were clogging flows.
(d) At least two possibilities of backflows due to settling lines and/or obstructions were found.

Plans for the future would progress in four phases:

Phase I: A systematic survey of all City owned lines and the removal of accumulated debris and silt from clogged or obstructed lines. (Estimated to be accomplished by February 28, 1974).

Phase II: Chlorination of entire line to reduce the flora of the line (immediately after Phase I).

Violation - City of Clifton - Athenia Storm Sewer (con't.)

Phase III: Biological sampling of entire line, one step at a time to isolate sections free of fecal coliform, and to locate source or sources.

Phase IV: Make whatever repairs or changes are necessary to halt pollution.

On June 24, 1974, Mr. Lubetkin wrote to Mr. Holster requesting an up-to-date report on progress. On July 3, 1974, Mr. Jamieson replied that due to the extreme amount of rainfall the past spring and early winter, sewer cleaning had been delayed. They recently had begun to clean the obstructions from the 60" RCP storm line on Elm Street. He stated that there was approximately 1 1/2 feet of silted material, boulders, etc. to be removed for about 200 feet. He also stated they would strive to complete Phase I of the work, but he said he could not estimate when this would be done. He reiterated that they would try to trace the pollution to its source and make the necessary corrections to eliminate it. He requested copies of lab analyses done by PVSC. These were sent to him immediately.

During August, September, and most of October, the City crew was still working on cleaning the line on Elm Street. However, we noted work stopped as of October 25, 1974, and PVSC has been informed this was due to manpower required for the leaf pick-up program and for several jobs of an emergency nature.

As of the end of 1974, PVSC was informed by Clifton officials that they were assigning crews to continue cleaning the lines and the work would be pursued until completion. Mr. Holster, City Manager, also reported to the PVSC that both their Health Department and Department of Public Works have been ordered to make this a high priority job and to stay on it to completion.

Cleaning of the line continued through June 1975. The inspector reported that they dragged the line on Elm Street between Twain Place and Colfax Avenue, a distance of approximately 200 feet, during January, February, and up to March 10. The line is a six-foot line in this stretch and Mr. Bush, Foreman of the Clifton crew, reported that the line was approximately one third filled with debris.

From March 11 thru April 5, 1975, the crew cleaned the line on Elm Street between Twain Place and Cloverdale Road. This is a six foot line of approximately 100 feet length. From April 7 to May 31, 1975, the crew continued cleaning the line from Cloverdale Road to Sargeant Avenue, a distance of 180 feet. Mr. Bush informed Inspector Parr that they were only able to clean about 15 to 20 feet per week, since the dirt in the line was about two feet deep and large stones were imbedded in the dirt which had to be broken by hand before they could be picked up by the bucket.

Violation - City of Clifton - Athenia Storm Sewer (con't.)

On May 5, 1975, Mr. Bush discovered a break in the 18" sanitary sewer and a 2" hole in a nearby manhole in the Athenia storm sewer at the corner of Speer Avenue and Orono Street. The two breaks allowed sewage from the sanitary line to enter into the storm sewer. The repairs to these two sewers were completed on May 19, 1975.

On June 11 samples were taken at various places in the Athenia storm sewer, and all samples were polluting.

On June 18, Mr. Bush informed Inspector Parr that the dragging of this sewer on Elm Street was completed and all debris removed.

Samples were taken on July 1 in an attempt to locate the source of the pollution, but before follow up samples could be taken later in the month, heavy rains came,preventing further work.

Follow-up samples were taken in August and they indicated that pollution was still evident (high fecal coliform on August 13 and again on August 21, although T.O.C. and C.O.D. were low) indicating pollution was small. On August 29, work crews from Clifton were lifting manholes in an unsuccessful attempt to visually spot the pollution source.

Follow-up samples taken on September 4, 10, and 18 confirmed the indications in August that the pollution was not of industrial origin, but of sanitary origin.

Because of the difficulty in locating the source or sources of the sanitary pollution, Inspector Parr met with Mr. Rudy Lorenz, Assistant City Engineer of Clifton, on October 15, 1975. He reviewed the lack of success encountered by the Clifton Sewer Department in locating the cause of the pollution. Mr. Lorenz stated that he would request the assistance of the Clifton Board of Health.

On March 19, 1976, Mr. D'Ascensio and Supt. Cuccinello met with Mr. Rudy Lorenz, Clifton City Engineer and Mr. Stuart Palfreyman, Clifton Health Officer, regarding the four phase program instituted by the City of Clifton in 1973. Mr. Lorenz stated that Phase I had been completed (systematic survey of all City owned lines and the removal of accumulated debris and silt from clogged or obstructed lines). The sewer map had been revised as a result of Phase I and Clifton was preparing to implement Phase II (Chlorination). Mr. Palfreyman wrote to Mr. Lubetkin on March 24 and reviewed the future plans. The first step would be to reconfirm flows and directions. Samples would then be taken from 6 strategic points to obtain a baseline

Violation - City of Clifton - Athenia Storm Sewer (con't.)

set of data. The bacterial level would then be lowered by drip chlorination and when chlorination is halted, they hoped that the fecal coliform rise would occur most rapidly at the point or points of contamination. Those points could then be identified and corrected by a crew standing by for this purpose.

On April 12 representatives from the City of Clifton and PVSC met to plan the baseline sampling. A series of six samples were taken on April 15, but the results were erratic. A second series of eight samples were taken on April 20. These samples indicated a high level of fecal pollution throughout the sewer. On April 27 Mr. D'Ascensio forwarded the data to Mr. Palfreyman.

Since the samples taken on April 20 did not indicate the origin of the pollution, three additional samples were taken on May 11. These samples indicated that the pollution originated downstream of the Monhegan Street-Gargeant Avenue intersection. This information was sent to Mr. Palfreyman on May 18. In addition, Inspector Parr traced a large dry weather flow in the storm sewer at this point to Standard Packaging Corporation, 1 Liston Street, Clifton. Inspector Parr then met with Mr. Jack Snyder, Plant Superintendent, on May 21 and Mr. Snyder explained that the company discharges an unknown amount of cooling water to the storm sewer. Although the samples taken from the storm sewer by Clifton personnel on May 11 were non-polluting, Inspector Parr advised Mr. Snyder that Standard Packaging must still apply for an NPDES permit.

When nothing further was heard from Clifton, Mr. D'Ascensio again wrote to Mr. Palfreyman on June 8 requesting a schedule for further work on locating the source of pollution.

On July 8, Mr. William Harley, Clifton Sanitary Inspector, wrote to Mr. D'Ascensio and requested that another sample program be conducted to possibly narrow down the area in question. The surveys were conducted by PVSC on July 15 and again on July 22. The results showed a very high level of fecal pollut;ion at Sipp Ave., Speer Ave. intersection. Mr. D'Ascensio forwarded the results of the July 22 survey to Mr. Palfreyman on July 26 and again requested an abatement schedule. Mr. Harley replied on July 30 that Clifton would dye test homes in the area in order to locate the sources of pollution. PVSC was informed that when the dye tests were conducted on September 23, the 4 homes on Sipp Avenue and the 7 homes on Speer Avenue (representing 60% of the homes in the area) all gave negative results. On October 13 Mr. Palfreyman informed Inspector Costello that further work to abate this pollution would be delayed because the Health Department was busy with the Swine Flu program.

Nothing further was done as of December 31, 1976

Violation - City of East Orange, Dog Pound, 133 Midland Avenue, East Orange, N. J.
November 1, 1974 - December 31, 1976

(R. Kordja, L. Cuccinello, W. Fiore, & M. Cordasco)

On November 1, 1974, Mr. Eugene A. Field, Superintendent of the Essex County Park Commission, while investigating reports of oil pollution into Second River, noticed that a pipe from the East Orange Municipal Dog Pound drained into Second River. With the assistance of Mr. W. Gibbons, Sanitary Inspector for East Orange, a dye test was made (at 9:05 A.M.) and within a very short time the dye was visible at the outfall end of the pipe. Thus, it appeared that the animal feces and washing compounds entered into Second River through this pipe. Mr. Field wrote to the PVSC and reported the facts.

Mr. Lubetkin received his letter on November 12, 1974, and immediately requested the River Inspection Department to investigate and report. On this same date, Mr. Lubetkin sent a letter to Mr. M. D'Altilio, the engineer of East Orange, enclosing a copy of Mr. Field's letter and requesting a report from Mr. D'Altilio as to what East Orange would do to halt the pollution. Meanwhile, Mr. Cuccinello confirmed Mr. Field's report that pollution entered Second River from the dog pound. The pipe in question was an overflow pipe from a "cesspool" which received the washings from the pound.

On November 19, Mr. D'Altilio, P.E., replied to Mr. Lubetkin, informing that East Orange has allocated funds and was preparing plans for the relocation of the dog pound to a higher elevation which will permit the kennel washings to enter the sanitary sewer.

On November 25, 1974, Mr. D. Byrnes, Health Officer, wrote to PVSC, admitting that the drain was illegal and repeating Mr. D'Altilio's statement that they would relocate the dog pound. He stated that the plans and specifications would be ready for bidding during December 1974. He also stated that until the pound was relocated, every effort would be made to keep the drainage tap as clean as possible, thereby reducing the overflow into Second River.

Mr. Byrnes reported to the inspector that, as of the end of 1974, plans and specifications were nearly completed and that they would go out to bid as soon as possible to relocate the pound.

Although Mr. Lazzio was informed that they planned to advertise to relocate the pound in the middle of March, as of the end of March this was not done. Meanwhile, on March 31, 1975, PVSC received a copy of a letter to NJDEP from the Essex County Park Commission complaining about the situation.

Violation - City of East Orange Dog Pound (con't)

Mr. P. Lynch of the NJDEP replied to the Essex County Park Commission informing them that NJDEP had been advised that the project correcting the situation should go out for bids in the middle of April, 1975.

PVSC received a letter dated May 2, 1975, informing that although the dog pound was to go to bid April 28, at the last moment the City Council requested a gas chamber be designed as an additional alternate to the base bid contract. Accordingly, plans and specifications to include this were prepared. They expected to go to bid by the end of May, 1975.

However, on May 29, 1975, when Superintendent L. Cuccinello contacted the Engineering Department, he was told that the plans were not yet completed. They expected to complete them in about two weeks, at which time they would present them to the City Council for approval.

After many calls from Mr. Cuccinello (PVSC) for information, on July 25, 1975, City Engineer M. D'Altilio wrote to Mr. Lubetkin informing PVSC of the delays in design caused by the inclusion of the euthanasia chamber. He stated that he anticipated plans and specifications would be ready by bidding by September 1975.

On August 14, Mr. David Byrnes, Health Officer, City of East Orange, wrote to Dr. Edwin Gilbert of the N. J. Department of Health, stating that plans and specifications were approximately 95% complete and he hoped that bids could be made ready in September 1975.

On September 24, Mr. Jim Cowan, Assistant City Engineer, informed Mr. Cuccinello that the City Council had approved the plans and specifications on September 8, advertised for bids on September 9, and all bids were received on October 28, 1975.

On November 25, Mr. D'Altilio wrote to Mr. Lubetkin stating that the bids were rejected on November 24, 1975, since they exceeded the amount appropriated, and the project was being redesigned. No date for readvertising was given.

On March 25, 1976, Mr. Cowan, Asst. Engr., reported to Inspector Fiore that East Orange was again revising the plans for the new Dog Pound and expected to have them ready to receive bids by mid-April.

When again asked about the situation on June 30, 1976 Mr. Cowan now told Inspector Fiore that they were still revising the plans and specifications and he expected them to be completed and put out for bids in July 1976. Mr. Cowan in July stated that the plans and specifications were completed and they hoped

Violation - City of East Orange Dog Pound (con't.)

to receive bids so that construction could begin by September 1976. We were informed that the plans called for the installation of a 4 inch sanitary sewer line from the new structure which would run in an easterly direction to an existing 8 inch sanitary sewer on Midland Avenue. Because of the long delay in eliminating this violation PVSC had referred this to their legal department.

On October 1 Mr. Michael D'Atilio, City Engineer, wrote to Mr. D'Ascensio and reviewed the history of the design of the Dog Pound. Also on October 1, PVSC's Chief Counsel served notice on the City of East Orange that PVSC would institute a suit against the City unless the pollution was stopped immediately. Mr. D'Atilio replied on October 6 that the City would advertise for bids at the end of October. On October 29, the City Engineer again wrote to Chief Counsel Carella informing him that on October 26, 1976 the City Council of East Orange approved a resolution calling for bids for construction of a new dog pound. Bids were to be received December 13, 1976. He further stated that if bids were in order and within the appropriation therefore, a contract for construction would be awarded shortly thereafter.

PVSC has been informed that bids would be awarded on January 10, 1977.

De Minimis?

Violation - Flintkote Corporation, 480 Central Avenue, East Rutherford, N. J. 07073

February 10, 1975 - December 31, 1976
(F. Cupo, D. DeMarco)

While making a routine inspection of Flintkote Corp. on February 10, 1975, Inspector Cupo discovered that their boiler blowdown (which took place at 7 A.M. and 4 P.M.) discharged into the Central Avenue storm sewer, which emptied into the Carlton Hill storm sewer, thence the Passaic River. Although this type of pollution was very small, PVSC felt it should be diverted to the sanitary sewer through a blowdown tank, if possible.

Inspector Cupo informed Mr. Cordero, Plant Engineer, that this discharge was considered a violation and should be eliminated.

On February 28, Mr. Cordero informed Inspector Cupo that he had discussed the matter with Mr. Ruskin, the Plant Manager, and a study was being made to discover the best manner to eliminate the violation.

Violation - Flintkote Corporation (con't.)

On March 10, 1975, Mr. Lubetkin wrote to this company informing them that although the volume was not large, PVSC considered the discharge of boiler blowdown into the river as polluting and steps should be taken to divert this flow to the sanitary sewer, if possible.

On March 19, Mr. W. E. Ruskin, Works Manager of Flintkote, replied that they were in the process of determining the best way to take care of this boiler blowdown and as soon as this was determined, they would give PVSC an estimate of the completion of the project.

On May 7, 1975, Mr. Ruskin informed Mr. Cupo that he had been in contact with the East Rutherford Street Department to obtain permission to open the street so that a connection could be made into the sanitary sewer. On May 14, after Mr. Cupo inquired about progress, he was asked by Mr. Ruskin for assistance in determining who to contact to get permission to connect into the sanitary sewer. Mr. Cupo contacted Mr. R. DeLoro, Superintendent of the East Rutherford Sewage Authority, and was informed that Flintkote should write to them requesting permission to tie into the sanitary sewer with their boiler blow down Mr. Ruskin said he would do this immediately. Mr. Cupo spoke to Mr. Ruskin on May 22 and again on May 27, and finally on June 2, 1975, Mr. Ruskin wrote the requested letter. On July 23, Mr. J. Cordero, Plant Engineer, informed Inspector Cupo that East Rutherford Sewer Authority had given Flintkote permission to connect to their line.

On August 1, Inspector Cupo was told by Mr. Ruskin that bids received to do this work were considered exceptionally high.

On August 13 Mr. D'Ascensio spoke with Mr. Ruskin. He stated that due to the high cost he was also considering pretreating the waste and discharging it directly to the storm sewer. He also stated that USEPA was withholding approval of their NPDES Permit pending the outcome of this decision.

On September 15, Mr. D'Ascensio wrote to Mr. Ruskin requesting a written statement indicating when Flintkote would reach a decision on a specific course of action and when a timetable would be available for eliminating the pollution. Mr. Ruskin called Mr. D'Ascensio on September 19 and stated that a decision had not yet been made. He was again reminded that sufficient progress had not been made and was asked again to write to the Commissioners providing the above information. As of the end of September this had not been done.

Violation - Flintkote Corporation (con't.)

Mr. Ruskin finally wrote to Mr. D'Ascensio on October 3 proposing to determine the best method to resolve the problem by December 31 and to complete the project by June 30, 1976. Since the pollution was small, Mr. D'Ascensio wrote to Mr. Ruskin on October 28 and stated that PVSC would accept their timetable, but it was expected that Flintkote would hold itself to it.

On December 1, Mr. Ruskin called Mr. D'Ascensio and stated that Flintkote had received their final NPDES Permit. The permit required that the boiler blowdown be diverted to the sanitary sewer by January 1, 1977. Flintkote was attempting to arrange a meeting with USEPA since they were also considering pretreating the boiler blowdown and discharging it to the river as an alternative. They did not wish to install this equipment to pretreat if they would have to still divert the boiler blowdown to the sanitary sewer at a later date. Mr. D'Ascensio asked Mr. Ruskin to send a letter to PVSC detailing pertinent information. Mr. Ruskin replied on December 29, that a decision would be made by January 31, 1976 on a specific course of action but this would not alter their proposed June 30, 1976 schedule.

On February 4, 1976, Mr. W.E. Ruskin sent a letter to PVSC wherein he stated that Flintkote had decided to treat its boiler blowdown and continue to discharge into the Central Ave. storm sewer (thence to the Carlton Hill storm sewer and the Passaic River). They stated that the equipment to treat this discharge would be installed by June 30, 1976.

On March 11, Mr. D'Ascensio wrote to Mr.Ruskin and requested that he supply plans and specifications showing work to be done together with information concerning the parameters Flintkote planned to attain in discharge.

When Mr. D'Ascensio did not receive a reply to his letter, he again wrote to Mr. Ruskin on May 10 requesting this information. Finally, on May 28, Mr. Ruskin replied that Flintkote intended to meet the standards put forth by the Federal EPA and that the treatment plant would be completed by June 21, however, he did not supply the data previously requested.

On June 25 Mr. Ruskin wrote to Mr. D'Ascensio and stated that the completion date should have been June 30 not June 21.

PVSC met with Mr. Ruskin on July 13 and inspected the plant. While Flintkote installed a new sampling point and thermometer, the only effort made to supposedly eliminate the pollution was to install a ½ inch water line to dilute and cool the small volume originating from the boiler blowdown. A sample was taken on July 29 and it was polluting.

Violation - Flintkote Corporation (con't.)

On August 3 Mr. D'Ascensio wrote to Mr. Ruskin, and explained that the action taken was inadequate and directed him to take further action to eliminate the violation. On September 17 Mr. Ruskin called Mr. D'Ascensio and was advised that either Sulfuric or Hydrochloric Acid could be used to control the alkalinity. On September 23 Mr. Ruskin informed Inspector DeMarco that he planned to install two 100 gallon tanks for addition of acid to reduce the pH.

On October 21, Mr. Ruskin informed Inspector De Marco he expected to have the plans and specifications completed in a week and the tanks installed shortly thereafter. However, on October 29 Mr. Ruskin informed Inspector De Marco that the plans would be further redesigned as he felt the old plans were no longer feasible.

Hearing nothing further, Mr. D'Ascensio wrote to Mr. Ruskin on November 15 and again requested an abatement schedule. Mr. Ruskin replied on November 19 and stated that he was assembling an in-line pH control unit and expected to have it in operation within two weeks.

On December 2, 1976, Inspector DeMarco was informed by Mr. Cordero, Plant Engineer, that they had started to install the equipment and expected to complete the job by December 7 and begin treating the boiler blowdown on December 8. However, when they began to feed the blowdown through the packed column, containing the solid pH depressant, the pH of the discharge dropped to 3 which was unsatisfactory.

Mr. Ruskin informed Inspector DeMarco, on December 8, that they had to redesign the system. He supplied a sketch which showed the addition of phosphoric acid, from alternating tanks, through a metering pump into a baffled "Addition Chamber" where it mixed with the boiler blowdown. The combined stream then passed through an inline stationary mixer and one of two parallel inline strainers before being discharge into the storm sewer.

On December 23, Mr. Ruskin wrote to Mr. D'Ascensio and enclosed a second sketch of the proposed plans. He also stated that the company was awaiting delivery of the metering pump.

Violation - Town of Kearny, Pennsylvania Avenue Storm Sewer
January 1972 to December 31, 1976 (J. Colello & J. McLaughlin)

The 24 inch Pennsylvania Avenue storm sewer and the 12-inch sewer, adjacent to it, were discharging liquid to the Passaic River, containing significant amounts of phosphate.

Since the Monsanto Company, nearby, was a manufacturer of this material, they were held responsible. In the time from January 1972 to October 1973, the Monsanto Company did many things to halt their pollution, including complete recycling of water that formerly went to the Passaic River and sealing off outlets to the storm sewer. However, the ground was considered saturated with phosphate and the ground water, with considerable phosphate in solution, continued to enter the storm sewer, thence the Passaic River.

The Monsanto Company had agreed to finance a program of TV inspection of the Kearny storm sewer,and thence a program to seal it from infiltration coming from the Monsanto plant, if the Town of Kearny would clean the storm sewer so that the TV equipment can be put in the sewer.

On October 15, 1973, Mr. Lubetkin wrote to the Town of Kearny informing them of Monsanto's agreement and Mr. Lubetkin requested that the Town do the necessary cleaning so the pollution can be eliminated.

On October 25, 1973, Mr. S. Aitkin of the Town of Kearny informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Since nothing further had been heard from Kearny on this matter, on February 27, 1974 Mr. Lubetkin again wrote to it reminding them of the situation and requesting information as to when they could clean the storm sewer.

Inspector Colello reported that on March 13, 1974, the Sewer Department of Kearny tried to clean the sewer but couldn't get past a blockage. He reported that Mr. Delaney, Foreman, stated that a manhole would have to be built, due to the long run, in order to complete the cleaning.

Violation - Town of Kearny - Pennsylvania Ave. Storm Sewer (con't.)

On April 4, Mr. Lubetkin wrote to Kearny requesting information as to the time schedule on construction of the manhole. On April 9, Mr. J. Kurszwicz, Public Works Superintendent, replied, stating a time schedule would be forwarded as soon as the equipment was available.

On May 7, the Kearny crew discovered that the storm sewer contained a hard substance that significantly obstructed it. A piece was chipped out and analyzed and was found to be at least 60% calcium triphosphate. The Foreman, Mr. McAleavy informed the PVSC inspector that he would contact Monsanto about clearing the line of this material.

On October 29, 1974, Mr. Lubetkin wrote to Kearny, summarizing the problem, and stating that it was the PVSC understanding that Kearny would contact Monsanto about clearing this line of this material, so that the remainder of the work could proceed. Mr. Lubetkin requested an up-to-date report on this matter.

On November 12, 1974, Mr. J. McAleavy, Foreman of the Sewer Department. wrote to PVSC wherein he stated that it had been determined that the calcium triphosphate did not come from the Monsanto Company but from Newark Gypsum where it was used in the manufacture of plaster board. He stated that Newark Gypsum was no longer located in Kearny. He also stated that the blockage was on the property of Monsanto, and Kearny would have to dig up the sewer to correct it. He stated that he met with the River Inspector and since he felt the pollution was minimal that the matter should be left as is. On November 21, Mr. Lubetkin wrote to Mr. McAleavy stating that if Newark Gypsum was responsible for the blockage of a Kearny storm sewer, then they should be located and be made to pay for the removal of the blockage. PVSC did not think it proper to ignore a problem if the cause of the problem had relocated. If Newark Gypsum could not be located, or if they had gone out of business, then the situation would have to be re-evaluated.

Nothing further had been done on this problem during 1975 or 1976. Since the pollution was orthophosphate, and since the PVSC did not think that this was damaging to these waters at that location, PVSC did not take action against Kearny; However, PVSC feels that Kearny should clear the sewer so as to maintain a proper storm outlet.

Violations - City of Newark (J. McLaughlin & J. Colello)

On February 6, 1970, Judgement was entered against the City of Newark to abate all pollution from the City's Lockwood Street and Blanchard Street Storm Sewers by May 6, 1970, (three months from the date of the Order), and the City of Newark was ordered to remove all pollution from the Meadowbrook Storm Sewer by August 6, 1970 (six months from date of Order). The city awarded contracts to construct a sewer in Lister and Blanchard Street in order to abate pollution from Blanchard Street, Lockwood Street and Brown Street Sewers. Problems occurred during construction due to change of engineers and administration.

The firm of Barnett and Herenchak was hired by the City to take over the engineering and supervision of construction, formerly done by Constrad. Work on this construction started on September 10, 1970, and continued until pollution was eliminated from the Brown Street sewer.

The City appeared in Court on September 18, 1970, and made application for an extension of time for their pollution.

On August 25, 1971, Mr. Lubetkin wrote to Mr. S. Friscia, Director of the Department of Public Works, informing him that the pollutions had continued for a considerable period of time. He was also informed that it was the Commissioners' opinion that a considerable portion of the pollution in the lower Passaic River can be attributed to the discharges from these Newark Storm Sewers.

A conference was held on October 13, with Mr. Van Riper and Mr. R. Altiero of Newark, at the Commissioners' office. At this conference the representatives of the City promised to move forward to abate these long standing pollutions.

At the request of the Commissioners at their meeting of December 17, 1971, Mr. Segreto wrote to the Mayor and City Council on December 20, bringing this matter to their attention and pointing out that the City was in default of a court order of 1970, and informing them that if the City did not take action to comply with the court order, then an action will be instituted immediately for supplemental relief. Since no response was received, Mr. Segreto again wrote to both the Mayor and City Council on January 5, 1972. On January 19, Mr. F. D'Ascensio wrote to Mr. Segreto, informing him that the letter was brought before the City Council December 30, 1971, and a letter sent to Mayor Gibson, January 3, requesting information from the Mayor. Nothing was heard and a

Violations - City of Newark (con't.)

second letter dated January 6, was sent to the Mayor. As of January 19, the City Clerk stated that still nothing had been heard from the Mayor and the matter had been put on the calendar of the January 25, 1972 Special Conference of the Council.

On January 25, Mr. Roger Lowenstein, Assistant Corporation Counsel, called Mr. Segreto amd informed him that the matter had been referred to him and that he would confer with the Engineering Department and contact Mr. Segreto in a few days.

After hearing nothing further, Mr. Segreto filed a Notice of Motion for Supplemental Relief pursuant to the provisions of R.S. 1:10-5 in the Superior Court of New Jersey, Docket No. C-2886-68. Hearing was set for February 18, 1972.

At the hearing Newark admitted it was polluting and their new Chief Engineer, Mr. A. Zack, stated that Newark desired to halt the pollution but they would need time. Judge Ward Herbert ordered that the City of Newark submit to the Court and to the Commissioners within three months from date, a detailed written engineering report containing a specific proposal which Newark will undertake to abate the pollution. The order was dated February 28, 1972.

On June 8, the City of Newark sent a report to the Commissioners entitled " Pollution Report and Abatement Plan of the City of Newark" dated May 26, 1972. Mr. Lubetkin reviewed the report and although this report showed work done, it was not complete in many details, and after discussing the matter with the City, they agreed it was only an interim report to show that they are actively working on this matter.

On July 6, 1972, a conference was held at Newark City Hall. It was pointed out by Newark that a considerable amount of work had been done on these pollutions but they have not complied with the court orders concerning specific proposals, etc. The City stated that it needed more time and would apply to the Court for this.

Since no action on a court application was made, Mr. Segreto on August 28, 1972, wrote to the City that unless the City moved by the end of the week, the Passaic Valley Sewerage Commissioners would have no alternative but to file motions for supplemental relief.

Receiving no reply, Mr. Segreto again wrote to Mr. Lowenstein outlining in detail the problem, and stating that this would be the last notification and that unless formal application for extension

Violations - City of Newark (con't.)

of time was made by the City, the Passaic Valley Sewerage Commissioners would have to apply for supplemental relief.

This was done on September 18, 1972, and the motions were scheduled for October 20, 1972.

In the meantime, in September 1972, the Harrison Ditch Storm Sewer was eliminated from the violation list.

At the request of the City, the motion was adjourned until November 19, 1972. In a letter to Mr. Segreto, dated October 20, a report on progress by Mr. A. Zach dated October 18, was enclosed.

On November 10, 1972, the matter was heard before Judge Herbert. The Court ordered illegal connections be terminated by March 1, 1973, and all pollution be halted by September 1, 1973.

On February 19, 1974, Mr. S. Friscia, Director of Public Works wrote to PVSC giving the status of each item as of that date (the information is included in the following detailed report).

On February 20, 1974, Mr. Raymond Nesto, Manager of Division of Sewers in Newark, addressed the PVSC, requesting help in halting the pollutions of the Newark sewers. He was assured that PVSC, as it always had in the past, would continue to help in any way possible. On February 27, Mr. Lubetkin wrote to him confirming this and suggesting a conference, and suggesting that the City's legal department contact the PVSC legal department and arrange for such a conference.

On June 24, 1974, Mr. Lubetkin wrote to Mr. Zack for an up-to-date report on any progress achieved to eliminate the various Newark Storm Sewer pollutions. On August 23, Mr. Nesto wrote to PVSC stating that funds for television inspection had been requested. On August 26, Mr. Lubetkin wrote Mr. Nesto requesting a time schedule for the work. On September 3, Mr. Lubetkin again wrote requesting further information, and Mr. Nesto replied on September 6 that the Standard Tallow Company was under mandate by the Health Department to install facilities to eliminate grease discharges, and that the Norpak Corp. had been under litigation since 1972 to eliminate its septic tanks. He also stated that they are working towards the elimination of the problem of the various storm sewers.

On September 13, 1974, Chairman Bay wrote to Mayor Gibson on these matters, asking that he review them and requesting a decision as to what is to be done.

On January 16, 1975, Mr. Zack wrote to PVSC updating the Newark progress on each of the sewers involved. He stated that Newark was sorry it had not been able to complete the work more rapidly, however, due to limited funds,work had to be put off. He stated that it was Newark's intention to proceed in an expeditious fashion upon the availability of funds on or about April 1, 1975.

Violations - City of Newark (con't.)

The City of Newark had received a National Pollution Discharge Elimination System Permit from the USEPA on January 31, 1975. Among its outlets to the Passaic River were listed Blanchard-Lockwood Avenue Overflow, (I presume they mean the Blanchard Street storm sewer and the Lockwood Street storm sewer, which are really two separate sewers); Brown Avenue Overflow (Brown Street storm sewer); and Roanoke Avenue Overflow (Roanoke Avenue storm sewer).

The Permit required the City of Newark to cooperate with PVSC in its wet weather study. Newark is required by the Permit to submit an approvable monitoring plan for implementing a monitoring program and an abatement study for the overflows by July 31, 1975, and within six months of approval they must implement the program. By January 31, 1976, Newark must submit an Engineering Report which shall include a schedule for the elimination of all discharges of untreated wastewater.

When the Permit was in the preliminary form, PVSC requested that USEPA require Newark to keep PVSC informed with copies of the reports. This was not done at that time. On February 18, 1975, PVSC again requested of the USEPA that copies of monitoring and compliance reports be sent to the PVSC. On June 25, 1975, the USEPA revised Newark's NPDES Permit to require Newark to send copies of their self-monitoring reports to PVSC.

On March 27, 1975, Mr. Zack, Director of Engineering of Newark, sent the City's first report to the USEPA listing some industries located in Newark, their flows, and the sewer ordinances Newark has to control such discharges.

The only work done during 1976 was on the Meadowbrook Storm Sewer.

The following was the status as of the end of 1976:

Blanchard Street Storm Sewer - The discharge from this sewer contained oil, high B.O.D., and an exceptionally high C.O.D. The City of Newark, on March 30, 1971, engaged Robinson Pipe Cleaning Company to make a T.V. inspection of this line. However, the City reported that the inspection was frustrating because the storm sewer was not cleaned properly by the contractor and will have to be attempted again at a later date. At the October 13 conference, Mr. Van Riper said he would recommend to the City that a 1300 foot section of this sewer be replaced.

On December 14, Inspector J. McLaughlin reported that a greater quantity than usual of oily liquid was being discharged from this sewer to the river, with a strong petroleum odor. Mr. Van Riper was informed by telephone on December 15, by Mr. Goldberg as soon as he saw the sample, that the sewer had a potential explosive material in it. (This discharge had a C.O.D. of 26,107 mg/l). Mr. Lubetkin confirmed this in a letter dated December 17, 1971 to Mr. Van Riper.

Violations - City of Newark - Blanchard Street Storm Sewer (con't.)

The October 18 report recommended the relaying of 1300 feet of sewer from the bend in the road to the Passaic River in Blanchard Street. Plans and sepcifications were being prepared and the estimated cost of the work was $250,000.00. If the project could be funded by mid-December the work would be completed by June 1, 1973. The project was not funded.

As of the end of July 1973, Mr. Zack reported that plans, contracts and specifications had been prepared and the Division of Sewers was waiting the approval of a Bonding Ordinance by the City Council to provide funds for the project.

The City spent the latter part of 1973 rodding, dragging and jetting the sewer lines for cleaning. In the February 19, 1974 letter, Newark reported that the source of the pollution had been determined to be the effluent from the Standard Tallow Company. They also reported that they had served notice on Standard Tallow Company to cease and desist.

During 1975, Newark had continued to monitor the effluent from this sewer in an effort to determine where interconnections exist that introduce pollutants into the sewer. In addition, the proposed 1975 capital budget carries funds to conduct a more detailed cleaning of the sewer and a TV inspection and monitoring program. As each source of pollution was located, the connection will be removed and/or sealed as is determined by the Division of Sewers in the best interest of the City.

Nothing further was done in 1976.

Brown Street Storm Sewer- Previously, the end of this sewer at Lister Avenue had been sealed and this storm sewer now only drains a one block length from the Passaic River to Lister Avenue. At the time it was sealed (4/23/71), it was assumed pollution was abated since no dry weather flow came from this sewer. However, as the tide goes in and out, it alternately fills and drains this sewer and evidently there is polluting material entering into this sewer again, since samples taken December 14, 1971,and January 25, 1972 showed high C.O.D., turbidity, and were positive to a H_2S test.

The June 8 report recommended a relining of this sewer, if feasible. Unfortunately, an inspection made after the report was written revealed a pile had been driven through this sewer. This pile had been driven in 1964, but according to Sherwin- Williams, the break area was boxed with concrete around the pile to give the sewer the same volume outflow. Although the area of the pile may not be the source of the polluting infiltration, it makes it difficult to reline the sewer. The polluting material, a "still bottom" was probably being pumped into the ground from some nearby industry, and the City of Newark's representatives said they were trying to locate the source.

Violations - City of Newark- Brown Street Storm Sewer (con't.)

The October 18 report stated they were still studying the feasibility of relining, and that they expected their analysis to be completed within thirty days.

Mr. Zack reported that relining was not feasible. He reported that the plan as of the end of 1972 was to seal and abandon this sewer and relay a new 12" storm line as a substitute.

As of the end of July 1973, Mr. Zack reported that arrangements are in process for a TV camera inspection to determine the condition of the line, to be followed by the necessary remedial action.

Monies had been requested, but not appropriated as expected, in the City's 1974 operating budget to clean this sewer and conduct a detailed television survey. It was anticipated that this would have been completed by the end of March 1974. Following this Mr. Friscia stated that illegal connections, if any, would be terminated, and areas of seepage, if existing, would be pressure grouted. Nothing further was done during 1975 or 1976.

Lockwood Street Storm Sewer- Mr. R. Altiero , Newark's Sewer Department Engineer, reported that on March 22, 1971, visual inspection of the Lockwood Street Sewer, between Lister Avenue and Euclid Avenue, was attempted. However, due to the excessive amount of silt and mud, it was impossible to complete that inspection. This portion of the Lockwood Street Storm Sewer was again cleaned by LaSal Contractors and examined. It was reported at the October 13, 1971 conference by representatives of Newark, that part of this sewer was failing and a consultant would have to be hired for recommendations.

The June 8 report again recommended a visual inspection and manhole to manhole survey be made in order to determine and seal illegal connections. In Mr. Zack's memo of June 6, he stated that it was anticipated this could be accomplished within a two month period.

The October 18 report stated they were listing all industries in the area and work was quite involved.

As of the end of July 1973, Mr. Zack reported that visual inspection of the line continued in order to determine and seal illegal connections and report the condition of the sewer line. He stated progress had been limited due to manpower available, but it was anticipated the survey would be completed in the near future.

The February 19, 1974 report stated that heavy deposits of silt and mud materials and gas in the line had prohibited any form of remedial action by the City's forces.

Nothing further was done in 1975 or 1976.

Violations - City of Newark (con't.)

Meadowbrook Storm Sewer - Coliform is still being detected at the discharge of this sewer to Second River, but the discharge is generally not polluting in other parameters. During 1971, several pollution connections to this sewer in Belleville were eliminated.

The June 8 report recommended a visual inspection and a flushing of this sewer. It was estimated a two month period was needed.

The October 18 report stated that detailed monitoring and surveillance was required, and cited the use of this sewer by Belleville as a possible source of pollution. They expected to isolate the responsibility for the pollution within two months time. Samples taken by Mr. R. Altiero indicated that a significant pollution was coming from the Belleville area.

As of the end of July 1973, Mr. Zack reported that Newark had eliminated all complaints for which they were responsible, and it was believed that Belleville was now the source of pollution. Mr. Zack also reported that Belleville is of the opinion that Bloomfield was in turn responsible for the pollution. Efforts by Newark to have the matter resolved had not been successful and had been referred to Newark's legal department.

The August 23, 1974 report from Newark again stated that there are no violations within Newark and that requests had been made of Newark's Legal Department to institute proceedings against the Town of Belleville. Mr. Lubetkin, in his letter to Newark dated August 26, 1974, pointed out that this statement had been also made previously (February 19, 1974) and requested further information as to the status of the legal action.

In Mr. Zack's letter of January 16, 1975, he repeated that the matter had been referred to the City's Law Department.

Mr. Soldo, Superintendent of Public Works of Belleville, denied the City of Newark's representatives' statement that the pollution of the Meadowbrook Storm Sewer was coming from Bloomfield or Belleville. Mr. Soldo stated that it had been the practice of Newark, Bloomfield and Belleville to make joint inspections of the sewer (the last was 1973). He said that since East Orange, Bloomfield, Belleville and Newark, by agreement, were responsible for the maintenance of the Meadowbrook Storm Sewer, it would be necessary for all to take active participation to correct the problem. He suggested a meeting of all concerned to inspect the entire length of the sewer. PVSC thought this was a good idea and supported such a conference.

Violations - City of Newark - Meadowbrook Storm Sewer (con't.)

On August 13, Messrs. Soldo (Belleville), Marks (Newark), Cucci-nello, Dondero, and D'Ascensio (PVSC), as well as line crews from Belleville and Newark, conducted a field survey of the sewer. All five samples taken were polluting. On August 15, Mr. D'Ascensio wrote to Messrs. Marks and Soldo stating that due to the complexity of the problem, a conference would be necessary to plan a precise study in order to pinpoint responsibility.

The conference was held at the PVSC office on September 9, attended by representatives of the Town of Belleville, City of Newark, Elson T. Killam Consulting Engineers, and PVSC. At the meeting it was decided to invite the Town of Bloomfield and City of East Orange to future meetings; to have each municipality furnish a drawing of the sewer within its boundary; and to attempt to lo-cate the original construction drawings.

On September 10, Mr. D'Ascensio wrote to Mr. Sol Friedman, Bloomfield Town Engineer, and Mr. D'Attilio of the East Orange Sewer Department, furnishing them with planimetric maps, asking them to fill in the location of the Meadowbrook Storm Sewer, and inviting them to future meetings. On September 12, Mr. D'Ascensio wrote to Mr. Paul Krarup of the Essex County Park Commission re-questing a print of the Meadowbrook Storm Sewer where it passed through Branch Brook Park.

All of the maps required to complete the survey were received by PVSC during October and are being compiled.

While compiling the various maps, certain discrepancies were discovered in the location and dimensions of some of the lines in Newark, East Orange, and Belleville. Additional data was gathered and a meeting was scheduled for December 17, 1975 with representatives of the four municipalities to review and determine if the maps are correct and also to plan sampling in order to localize the source of the pollution.

At the conference additional discrepancies were found. It was decided that the PVSC and City of East Orange would begin sampling at five locations in East Orange, but adverse weather forced a postponement to 1976.

These manholes were sampled on January 6, 1976, with only one (Leslie Street) showing a pollution, and this was not large enough to account for the total pollution of the Meadowbrook Storm Sewer. A conference was held January 9 with representatives of East Orange, and it was decided that the results of the samples were inconclusive and at least two additional sets of samples would be taken.

A new set of samples were taken on March 30, 1976 and one (Sussex Ave. at Sussex Mall) showed a very high fecal coliform count and the situation was investigated.

Violations - City of Newark - Meadowbrook Storm Sewer (con't.)

The investigation in April disclosed that this particular sample was taken from a sanitary sewer not a separate storm sewer line feeding the Meadowbrook Sewer. Thus the City of East Orange was eliminated as a source of the sanitary pollution of the Meadowbrook Storm Sewer.

During this investigation, the City of Newark uncovered a source of pollution into the Meadowbrook Storm Sewer at the intersection of North 13th St. and Sixth Avenue. On April 6 Mr. Valente and Mr. Benz of the Newark Engineering Department,while tracing back a dry weather flow,discovered a break in the upper part of a 10" sanitary lateral in front of home #375 Sixth Avenue, Newark, which ran through the storm sewer trunk into the sanitary sewer on the opposite side of the storm sewer.

Sanitary sewage was overflowing from the break in the lateral into the Sixth Avenue storm sewer thence into the Meadowbrook Storm Sewer on North 13th St. An obstruction in the sanitary sewer was found which caused the sewage to back up and overflow into the storm sewer from this break. When the obstruction was removed, on April 9, the sewage level lowered and the overflow ceased. The area was checked on three subsequent occasions by Mr. Valente and there was no overflow. The break in the line was repaired by the Newark Sewer Department on May 27, 1976.

An overflow connection from the 21" Newark sanitary line to the Meadowbrook Storm Sewer at the intersection of North 8th Street and Honiss Street was confirmed. However, no dry weather overflows were detected in May.

Since the City of East Orange had been eliminated as the source of the sanitary pollution, it was necessary to begin surveying the Town of Bloomfield. Mr. D'Ascensio wrote to Mr. Sol Friedman, Bloomfield Town Engineer, on May 13 and requested a conference to review plans for the survey. Mr. Friedman called Mr. D'Ascensio on May 14 and stated that the Town of Bloomfield could conduct a field survey without the need of a conference.

The survey was conducted on June 3 but since it was desirable to confirm the results, a second survey was conducted on June 9. The results of both surveys did confirm that sanitary pollution originated in Bloomfield, particularly in the Edison St. Alva St. area. This information was sent to Mr. Friedman on June 15 together with a request for an abatement schedule.

On July 2, 1976, Mr. Friedman replied wherein he agreed to meet with Inspectors' Cordasco and Fiore. Mr. Cordasco reported that he met with Mr. Friedman on July 29, 1976 and informed him that sewage was leaking into the storm sewer at Edison and Alva St., Bloomfield.

Violation - City of Newark, Meadowbrook Storm Sewer (con't.)

When nothing further was heard Mr. D'Ascensio again wrote to Mr. Friedman on August 10 and requested an abatement schedule. Mr. Friedman replied on August 16 and stated that investigative steps would be taken by the Health Department and Maintenance Division to locate the source of pollution.

When nothing further was heard, Mr. D'Ascensio wrote to Mr. Friedman on October 5 and requested a status report. On October 12 Mr. Friedman replied that the investigation was still underway.

Since the pollution originating in Bloomfield was only a small part of the total, a survey was conducted at seven locations in the Newark, Belleville area on November 18, 1976. The results were inconclusive and the survey was repeated on December 8. The results from both indicated that the level of the pollution was much less than had been measured in the past.

Five additional samples confirmed that the level of pollution was reduced, but in order to determine if this is a true reduction or the result of holiday plant shutdowns, which resulted in lower flows and, therefore, lower levels of pollution, the survey will be repeated in January, 1977.

Roanoke Avenue Storm Sewer - Industrial waste continued to discharge into the Passaic River, despite the concrete dam built by the City to keep the sanitary sewer from overflowing into the storm sewer.

On December 30 and 31, 1970, the City attempted to walk and photograph a part of this sewer, to determine the source of pollution, with negative results. Mr. Altiero stated the sewer must be cleaned before they could reattempt to locate the source of pollution. He also reported that plans and estimates had been completed for the cleaning of the Roanoke Avenue Sewer between Doremus Avenue and Avenue P. In a letter dated August 31, Mr. Van Riper stated that he hoped for an award of a contract on September 1, 1971. During October, Mr. Van Riper stated that work was awarded to Condrin Construction Company, and work would begin in November. General Sewer Cleaning Company of Long Branch, New Jersey, a sub-contractor for Condrin, began cleaning this sewer on November 8, 1971. Sewer cleaning operations continued through November and the early part of December. On December 9, at approximately 9:30 A.M., the General Sewer Cleaning Co. was preparing to put a TV camera into the sewer when an explosion occurred, injuring three men. The explosion was located in the manhole of the Pitt-Consul Company property. Mr. Altiero reported to Inspector McLaughlin that further sampling would be done by the City, with analyses performed by Edel Laboratories before allowing anyone to enter the

Violations - City of Newark - Roanoke Avenue Storm Sewer (con't.)

sewer. TV inspection was completed January 10, 1972, and a 10" connection was found west of Doremus Avenue on Pitt-Consul property with a highly polluting discharge (C.O.D. 2662 mg/l). On January 24, samples taken by Inspector McLaughlin showed explosive vapors in this sewer. Mr. Altiero was informed immediately and Mr. Lubetkin sent a follow-up letter to Mr. S. Friscia, Director of the Department of Public Works.

The June 8 report stated that the solution would be to relay approximately 1,200 feet of 54" pipe from Doremus Avenue to Avenue P. No time table was given, but they felt this work could not be done until 1973.

The October 18 report repeated that the solution would be to relay 1,200 feet of this line.

As of the end of July 1973, Mr. Zack reported that plans and specifications were being prepared for the replacement of approximately 1300 feet of 54" sewer from Doremus Avenue to Avenue P including the preparation of legislation for a bonding ordinance to provide the necessary funds.

Mr. Friscia reported that the City's 1974 Budget included an appropriation to purchase essential safety and testing equipment to permit inspection since explosive vapors are in this line. He stated they wished to make an inspection to confirm proposed construction as being the necessary way to halt the pollution.

Mr. Zack, in his letter of January 16, 1975, stated the work had not been done due to lack of funding, but stated, as with the other sewers, funds had been placed in the proposed 1975 capital budget for the above work. He further stated that these funds should be available on or about April of 1975. However, the work was not done in 1975, nor in 1976.

Violation - Borough of North Arlington,
Boston Avenue Storm Sewer
April 7 - December 31, 1976 (F.Cupo & J.McLaughlin)

PVSC river inspectors routinely sample storm sewer outlets to the Passaic River that flow during dry weather even if there is no apparant pollution. The Boston Avenue Storm Sewer, a source of a previous pollution, was sampled on April 7 and 8 and analysis showed a high fecal coliform count indicating a sanitary pollution. Chief River Inspector Cupo contacted Miss Ruth Dawson, North Arlington Health Officer, on April 12 and informed her of the pollution. Three samples were taken at different manholes in the storm line on April 21, at the request of Miss Dawson, in an attempt to localize the pollution. The samples indicated that the pollution originated at the Boston Avenue River Road intersection, in the vicinity of the sanitary sewer which runs along River Road. Mr. D'Ascensio wrote to the Borough of North Arlington on April 27 informing them of the pollution and requesting a program of abatement.

Mr. Biondi of the Department of Public Works reported to Mr. Cupo on May 20 that a dye put in the sanitary line on May 18 was found to enter the Boston Avenue Storm Sewer. He said the Department would take steps to determine the exact location of the break so that the violation could be eliminated.

On June 7 Mr. Cupo spoke to Miss Dawson, who stated that according to Mr. Leslie Harvey of the Department of Public Works, the dye test indicated a break in the sanitary sewer line in the area of River Road and Boston Avenue. While making routine checks on June 15, Inspector McLaughlin encountered a crew from Fred Heyrich Pipe Cleaning and TV Inspection Service and Mr. Martin Ewing, Consulting Engineer, Neglia Associated of Lyndhurst, preparing to conduct an internal TV inspection of the sanitary sewer line in order to pinpoint the leak. They were unable to conduct the survey due to an accumulation of sand, gravel and rags in the line. By the time they cleared the debris, the water level in the sewer was too high and the survey had to be postponed. Mr. Ewing reported to Inspector McLaughlin on June 22nd that the Borough Council had approved the second TV inspection attempt at which time they would try to plug the line to minimize the effect of the high level.

The TV Survey was conducted on July 26, 1976, and we are informed that it showed the sewer had open and leaky joints and a report was made to the Mayor and Council advising the rebuilding of the sanitary sewer section.

PVSC was also informed by Mr. Ewing, that the Council had authorized plans for the design of a replacement sanitary line from Jauncey Avenue south to the point where this line connects to the PVSC interceptor, just north of Belleville Turnpike.

Violation - Borough of North Arlington (con't.)

Mr. Ewing informed PVSC that Bruno Associates of Newark, Consultants, had prepared an application for funding under the Federal Public Works Development and Investment Program. The papers were filed in Trenton on November 24, 1976.

This was confirmed in writing on December 24, 1976 by Mr. Joseph Neglia, Borough Engineer, who also stated that should a grant be authorized, construction will begin within ninety days.

Violation - City of Orange, Washington Street Storm Sewer
Intermittent

This is an intermittent violation. E.T. Killam Associates, in a report dated September, 1962, had originally recommended a complete rebuilding of this sewer to eliminate the pollution, but the cost was considered too high by the City. In 1965 the Commissioners took legal action against the City of Orange to halt the pollution.

The City did not build the new system needed, but as a result of the legal action, they plugged openings and repaired cracks to halt the pollution. They also installed a chlorination station, which went into operation May 15, 1966, to disinfect that sewage which they were unable to prevent from leaching into the system.

For a period of time samples were satisfactory, then samples were intermittently bad, as plugs fell out and cracks opened. Repairs were made as needed.

On March 9, 1971, the City informed the Commissioners that they were in the process of trying to obtain Federal and State assistance to improve the City's sanitary sewerage system. On March 22, Mr. Lubetkin wrote to the City, stating that the Commissioners hope that the work for which assistance is being sought will include the rebuilding of the Washington Street Storm Sewer.

On April 26, 1971, Mr. Lubetkin wrote to Mr. De Carlo, City Engineer, informing him of the problem and asking what program the City of Orange would institute to abate the pollution completely. A letter dated October 22, from the E. T. Killam Associates to the PVSC, explained that the City had made application to the Department of Housing and Urban Development for major improvements to the sewer system and had many meetings on this matter with H.U.D. and the Environmental Protection Agency. The letter stated that the City wished to proceed with this project, but was unable to do so until financial assistance could be obtained from the Federal or State Government.

Violation - City of Orange, Washington Street Storm Sewer (con't.)

On November 4, 1971, Mr. Lubetkin wrote to the N.J. Department of Environmental Protection to determine the status of the City of Orange, and received a reply dated November 17, stating that the NJDEP does not have information on progress of H.U.D.'s review. On November 19, Mr. Lubetkin wrote to H.U.D., requesting the status of the City's application. No reply was received; however on December 16, Mr. DeCarlo wrote to the PVSC, informing that they have had meetings with H.U.D. and received a project number which made him optimistic.

On January 7, Mr. DeCarlo wrote that as of January 5, 1972, the City of Orange had filed complete application form H.U.D. Project # WSF-NJ-02-39-1033 for the construction of a new collector system for portions of the City and also to eliminate direct interconnection between sanitary and storm sewers, as well as a program of elimination of sewer infiltration.

On February 22, Mr. J. Foley of E.T. Killam Associates, Inc. wrote to Mr. Lubetkin, enclosing a letter dated February 9, from the Environmental Protection Agency, stating that based on information they had, they were unable to certify the project at that time as the wastes were discharged into combined sewers, without storm water overflow treatment. However, in order to certify the project, even conditionally, they required additional data on the PVSC.

On March 6, Mr. Lubetkin wrote that any information they desired was available. Mr. Foley replied on March 10, stating that the information was no longer needed by the Environmental Protection Agency to process the application.

On May 24, Mr. DeCarlo wrote to the PVSC, informing them that the Department of Housing and Urban Development had issued a grant in the amount of $1,391,250.00 under Project WSF-NJ-02-39-1033, Orange, N.J. On May 30, Mr. Lubetkin requested information on exactly what work will be done to eliminate the pollution of Second River from the City of Orange.

On September 22, 1972, Mr. DeCarlo wrote to the PVSC stating that plans for the construction of the outlet sewer from Washington Street and North Day Street to the Second River Chamber on Glenwood Avenue were 95% complete. They were hopeful of going out for bids on this part of the project by December 1, 1972.

On January 26, 1973, Mr. DeCarlo wrote to the PVSC explaining they anticipated plans and specifications for the entire project would be completed and submitted to the N.J. Department of Environmental Protection by May 17, 1973, and as soon as approvals were obtained, construction would be started.

Violation - City of Orange, Washington Street Storm Sewer (con't.)

Although the project was originally approved by H.U.D. in the middle of 1972, because of problems of rights of way, etc., there were delays.

On February 27, 1974, Mr. DeCarlo wrote that on January 28, 1974, contracts were awarded in the amount of $664,407.75 on the first part of Orange's sewer rehabilitation program. Unfortunately, the first part will not halt the intermittent pollution of Second River, and it is hoped that Orange will complete the second part as soon as possible.

On June 6, 1974, Mr. DeCarlo wrote that the City planned to receive bids at the end of July for work that would eliminate the sanitary sewer overflows to the Parrow Brook Storm Sewer (thence Washington Street Storm Sewer). Advertisements did appear in the newspaper during July for this work, and bids were received on August 1, 1974. The City awarded the contract to the low bidder, A. E. Recchio, Inc., subject to the approval of H.U.D.

As of the end of 1974, the City refused to issue a Notice to Proceed for this work, since the principals of A. E. Recchio, Inc. are the same as the contractor on their first set of contracts, and the City was having difficulty with them. Mr. J. Petrucelli, Acting Municipal Engineer, informed PVSC that they expected this problem to be resolved shortly and work should start within a month.

But, by Dec. 31, 1975, A. E. Recchio still had not been given an order to proceed. PVSC had been informed that the Attorney for the City of Orange had recommended that a public hearing be held to determine whether A. E. Recchio, Inc. was qualified to proceed with this contract.

The discharge continued to be monitored and a sample taken on February 24, 1976 was polluting. Mr. Petrucelli, Municipal Engineer, reported that a chlorinator malfunction occurred February 21, and was put back in operation on February 25 at 2:00 P.M.

High coliform counts were also detected on March 11, indicating chlorinator malfunction.

A new chlorinator was installed on March 18, 1976 in an attempt to better control the level of chlorination. On April 13 Messrs. D'Ascensio, Cuccinello and Fiore met with Mr. Petrucelli and reviewed the operation of the chlorinator. Since the City of Orange had a chlorine test kit, Mr. D'Ascensio suggested that the chlorine operator check the outlet and make necessary adjustments rather than waiting for PVSC to sample and determine if it is polluting. All four samples taken in April showed a chlorine residual and acceptable coliform count, indicating better control.

Violation - City of Orange - Washington St. Storm Sewer (con't.)

Although the three samples taken in May had acceptable coliform counts, one sample (May 27) indicated a slightly high C.O.D.

Samples taken on June 3 and 9 again not only had very high fecal coliform counts but also high C.O.D. On June 15 Mr. D'Ascensio wrote to Mr. Petrucelli and requested a pollution abatement schedule. Samples taken on June 15 and 16 showed a slightly reduced level of pollution. Mr. Petrucelli replied on June 17 and stated that a sewer stoppage existed on South Center Street, near Main Street, which caused sanitary sewage to discharge into the Washington Street storm sewer. The blockage was removed on June 15, 1976. However, samples taken on June 23 and 30 continued to show a pollution, although at a very reduced rate. Mr. Petrucelli reported to Inspector Fiore on June 29 that this type of problem will intermittently develop until Phase II is properly completed.

Because of the long delays in eliminating this violation, PVSC notified the City of Orange on October 22 that unless the pollution was halted immediately, they intended to institute a suit in Superior Court.

Mr. Petrucelli replied on November 12, 1976 that the City felt it had isolated the source of pollution to a particular area within the city and had walked through the sewer on November 4 and logged the problem areas.

Another inspection was held on November 17, 1976 with Mr. D'Ascensio of PVSC and Mr.Wood of E.T. Killam Associates, consultant, and personnel of the D.P.W. of Orange.

During this investigation seven samples were taken at various locations where flows were observed entering the storm sewer (including a polluting sample from Rheingold Breweries). All seven samples were polluting. Mr. D'Ascensio forwarded the laboratory results to Mr. Petrucelli on November 29 and requested an abatement schedule. Most of the pollution appeared to emanate from the leaky sanitary sewer which runs roughly parallel to the storm sewer. Repairing the sanitary sewer should substantially reduce the pollution in the sewer. However, the combined manholes will continue to pollute intermittently until Phase II reconstruction,as stated previously, is completed. In reviewing the situation with the PVSC legal department, Mr. Lubetkin on December 2, 1976, recommended legal action be taken by PVSC, and as of December 31, 1976 affidavits and a Civil Action Complaint were being prepared.

PVSC was then informed by the City of Orange that the contract with A. E. Recchio Inc. had been settled and the City's Attorney and the Contractor's Attorney were in the process of preparing a release of the second contract, which would allow the City to proceed with the necessary work for the rehabilitation and reconstruction of the internal sanitary sewers.

Violation - City of Passaic - United Wool Piece Dyeing and Finishing Company - Weasel Brook
July 15 - December 31, 1976 (D. De Marco)

While making his routine survey of Weasel Brook on June 7, 1976 Inspector DeMarco noticed that the rear wall on the United Wool Property had collapsed. Although the 15 inch sewer pipe attached to this wall was intact and there was no sign of leaks (and therefore no pollution) at that time, Inspector DeMarco contacted Mr. Schlenger, President of United Wool Co. and was informed that the wall collapsed over the weekend (6/5 - 6/6/76). He also said the responsibility of safeguarding the pipe was the City of Passaic's. Inspector DeMarco then contacted Mr. R. Sando of Passaic in regard to this situation.

On July 15, 1976 the inspector reported that the line had started a slight leak at three joints. The City of Passaic reported that they are waiting for United Wool to rebuild the wall to make it safe for them to make the repairs.

On July 30, 1976, Mr. Lubetkin wrote to both the City of Passaic and United Wool pointing out that the whole sewer was in danger of collapsing and if this occurred there would be a massive pollution of Weasel Brook.

Mr. Lubetkin also pointed out that when a similar situation occurred in 1973, wherein both parties claimed it was the other's responsibility, PVSC was forced to take legal action and the court directed the City of Passaic to make the repair without prejudice to the City of Passaic to establish liability of any other parties. He further stated that this situation may be different, but that cooperation in this matter was essential so as to prevent the sewer from collapsing. They were directed to respond at once, informing the PVSC as to what action would be taken.

Since no action was taken in August to correct the situation, PVSC on September 10, 1976, filed a complaint with the Superior Court of N.J. against United Wool and the City of Passaic. Meanwhile Inspector De Marco on September 15 reported that a meeting had been held with representatives of the City of Passaic and United Wool and that he had been informed that an agreement had been reached whereby the City Engineering Department was to accept bids for demolition of the cracked wall that must be removed and then the City of Passaic would have their men repair the leaks.

The City of Passaic had the cracked wall removed on October 5 by Penn Ral of Hackensack. On November 22, 1976 the three leaks located on the top of the sewer line were repaired and PVSC was told that the leaks at the bottom of the pipe would be repaired as soon as the sewer department could obtain a work boat, as they had not been able to reach that area from above.

Cold weather and snow during December prevented Passaic from completing repairs.

Violation - City of Paterson - Washington Street Storm Sewer
April 3, 1975 - Dec. 31, 1976 (L. Tateo & M. Tomaro)

The Paterson Redevelopment Division of the City of Paterson is reconstructing an area known as Loop Road from Dale Avenue to Ellison Street, which includes a 120-inch storm drain. This drain built in 1970-71 started at Grand Street, runs north along Railroad Avenue, continues north along Paterson Street, and terminates at Ellison Street. In 1973 construction of the 120-inch sewer continued on Paterson Street to Broadway. At Broadway the path of the pipe leaves the street route and cuts diagonally to a point in Bridge Street near Hamilton Avenue, where a transition chamber was built. The 120-inch line is changed to two 108-inch parallel storm drains at the transition chamber.

The twin lines continue their diagonal path until the intersection of Hamilton Avenue and Washington Street, where it turns and follows Washington Street to its terminus at the Passaic River. Since the construction is not complete, bulkheads were installed at the transition chamber to prevent sewage from entering the Passaic River during construction and sewage was diverted into the existing Bridge Street local sewer.

However, as the sewer was put into operation, large amounts of grit were diverted to the Bridge Street sewer, thence to the Bridge Street grit chamber, causing PVSC a considerable amount of work to remove said grit. (This material should have been cleaned from the sewer by the contractor before the sewer was put in operation.)

In addition the bulkheads were too small and leaked badly allowing sewage to overflow and enter the Passaic River through the Washington Street storm sewer (sewage entered the storm sewer system through inoperative regulators).

Furthermore, Regulator #6 had not been installed in the chamber at Washington Street and River Street, and thus during high flows sanitary sewage also can enter the Passaic River through this chamber.

On April 15, 1975, Mr. Lubetkin wrote to the City of Paterson and directed that they make corrections to halt the pollution. On April 23, 1975 City Engineer, Mr. D. Malatesta, wrote to the Paterson Redevelopment Division, requesting an analysis of the problem and what action could be taken to rectify same. On April 30, Mr. John N. O'Malley of the Paterson Redevelopment Division wrote to their Consulting Engineer, referring the letters of PVSC and the City of Paterson to it for prompt action to halt the pollution.

Violation - City of Paterson - Washington Street Storm Sewer (con't.)

On May 19, Mr. Malatesta wrote to PVSC stating that they had requested the Paterson Redevelopment Agency and Clinton Bogert Associates, Engineers, to make a thorough investigation of the problem. He enclosed a letter, dated May 9 from Mr. J. Scarino of Clinton Bogert Associates, which made several recommendations including having the contractor expedite the completion of the Washington Street regulator. Also other regulators installed under Phase II construction were in need of maintenance. He felt the pollution problems were temporary, related primarily to construction, but that a more complete inspection would be possible upon completion of Phase III work.

On June 11, 1975, Mr. Lubetkin wrote to Mr. Malatesta summarizing the problem and pointing out three possible sources of the pollution and stating that whichever needed correction, should be corrected.

Since there had been no improvement in the situation, Mr. Lubetkin again wrote to Mr. Malatesta on December 16 requesting an up-to-date report on corrective action planned to eliminate the pollution. On December 24, Mr. Conway Mangullo, Project Coordinator, wrote to Mr. Lubetkin stating that Mr. Malatesta was on vacation; however, he informed Mr. Lubetkin that corrective measures to alleviate the problem were being studied and Mr. Malatesta would supplement this information upon his return.

On March 30, 1976, Mr. Lubetkin wrote to Mr. Malatesta reviewing the history of the problem and stating that this had been a constant source of pollution to the Passaic River since the regulators had been installed and again directing him to inform PVSC what will be done to eliminate the pollution.

On June 23 a conference was held at the Washington Street regulator to evaluate the present situation and to devise corrective measures to stop the pollution. Present at the meeting were officials from the City of Paterson, the Consulting Engineers, the Paterson Redevelopment Agency and PVSC. The conclusions reached at the meeting were as follows: 1) Regulators #1, #2 and #3, built during Phase I and II of the Redevelopment project, malfunction occasionally due to a lack of maintenance; 2) Regulators #4, #5 and #6 are not complete and have not been accepted by the City; 3) the PVSC trunk line surcharges frequently and intermittently. The surcharge results in the closing of the #6 regulator and the combined sewage flows into the storm drain thence the Passaic River. PVSC's position is that the history of surcharging is not new and the #6 regulator should not have been constructed at this time and should be closed or the elevation raised sufficiently so as not to by-pass sewage to the river during dry weather. Additionally, this regulator represents only a fraction of the polluting discharge, and the remaining five regulators must also be corrected.

Violation - City of Paterson - Washington St. Storm Sewer (con't.)

Mr. Malatesta felt that although sealing the bypass of the #6 regulator would prevent dry weather overflows, it could result in a serious back-up during wet weather. The consultant, Clinton Bogert Associates, was directed by the City of Paterson to investigate the possibility of raising the float to prevent dry weather overflow. In addition, Mr. Malatesta stated that his office was going to recommend to the governing body of Paterson to contract with a qualified maintenance contractor to keep the regulators operating properly.

On October 1, 1976, PVSC Chief Counsel Carella notified Paterson that if the pollution was not halted, PVSC would institute suit against the City.

A conference was held in the PVSC office on September 30 with representatives of Clinton Bogert Associates and the City of Paterson. It was agreed that the overflow weir of #6 regulator would be raised and the float set higher to prevent dry weather overflow and the remaining regulators would be adjusted.

PVSC has been informed that two regulator chambers on Market Street were cleaned and repaired in September. In addition, Mr. John Anderson, Paterson Sewer Foreman, informed Inspector Tomaro that routine inspections which were being made of all six regulators (on Mondays, Wednesdays and Fridays), indicated that sewage was not entering the Washington Street Storm Sewer. Samples taken on November 15 and 33 confirmed this. However, it should be noted that rainfall during this time was very slight and this could account for the fact that the level in the PVSC trunk was such that overflows of the Washington Street Storm Sewer were not as prevelent as in the past because of the control level of the #6 regulator. Although the remaining regulators had been cleaned, it will still be necessary for the city to raise the weir and float on #6 regulator.

However, when some samples in late November were non-polluting, PVSC was informed that Paterson did not intend to raise the weir and float on #6 regulator. Mr. Lubetkin wrote to Mr. Malatesta on December 17 and explained that because of the recent long period of dry weather, the ground water table,with its attendant infiltration of the PVSC interceptor, had dropped considerably. Therefore, although overflows did not normally occur during the dry weather, it was to be expected that #6 regulator would again overflow during wet weather and by-pass sewage into the Passaic River. He again asked that the preventive work on #6 regulator be completed. A sample taken on December 27, after the snow fall, was polluting.

Mr. Malatesta called Mr. Lubetkin and informed him that Paterson will make the necessary modifications to regulator #6 as soon as possible.

hazardous?

Violation - Rheingold Breweries, Inc., 119 Hill St., Orange, N.J.
Nov. 17 - Dec. 31, 1976 (M.Cordasco & J.Perrapato)

On November 10, 1976, PVSC received information, from the Consulting Engineer doing work for the City of Orange, that an illegal connection into the Washington St. Storm Sewer may have been discovered. On November 17, PVSC, the City of Orange and E.T. Killam Associates, Consulting Engineers, while conducting an internal survey of the City of Orange's Washington St. Storm Sewer observed the suspect discharge entering the storm sewer. A sample was taken and, when analyzed by the PVSC laboratory, was polluting. A dye was introduced into two manholes located on the Rheingold property confirming that Rheingold was the source of this pollution.

On November 18, Mr. D'Ascensio wrote to William Donovan, Vice President of Production, informing him of the violation and requested an abatement schedule. Gerard McNeil, Director of Laboratories and Technical Services, replied on November 24 and stated that the company had not been aware of the discharge and requested assistance from PVSC to trace the discharge lines responsible for the condition. Mr. McNeil requested a copy of the PVSC analysis (sent to him on November 30, 1976) and informed PVSC that Mr. Ernst Schickle and himself had been assigned to investigate the problem.

Rheingold intended to conduct a dye test to trace the lines, but since they are unable to locate blueprints showing the location of the sewer lines, the test was postponed.

Violation - Rocket Car Wash, 444 Market Street, Saddle Brook, New Jersey (J. Perrapato
July 24 - December 31, 1976 and J. Parr)

At 2:30 P.M. on July 24, 1976, while searching for the cause of the pollution and fish kill in Dahnerts Pond, Garfield, (see Violation & Elimination, American Home Foods, page 126), the inspectors noticed a sudsy wash water coming from the Rocket Car Wash going into a street catch basin (thence to Schroeder Brook, a tributary of the Passaic River).

Mr. S. Cain, the owner was contacted and he was informed the discharge was illegal and he should discontinue it at once.

Despite the inspector's warnings it was noted that the violation also occurred on July 25, 26, and 27, 1976. Sup't. Cupo again spoke to Mr. Cain on July 30 and again informed him that the discharge was illegal. A letter confirming this was sent to him on July 30, 1976.

Violation - Rocket Car Wash (con't.)

Mr. Cain informed Inspector Parr, on August 13, that he had applied for an NPDES permit. When nothing was done to abate the pollution Mr. Lubetkin wrote to the Township of Saddle Brook on August 23 informing them of the violation and stating that since the pollution flows through a municipal storm sewer it was also the responsibility of Saddle Brook to see that the violation was halted. He stated further that, since Rocket Car Wash had not responded to the Commissioners request, he was prepared to recommend that the Commissioners start legal action to prevent them polluting Schroeder Brook. Mr. Richard Galofaro, Saddle Brook Health Officer, requested a copy of the laboratory analysis on a sample taken on August 24 and Mr. D'Ascensio supplied it on August 27.

On August 26 Mr. D'Ascensio again wrote to Rocket Car Wash, directed them to cease the violation, and stated that if they failed to comply the matter would be referred to the Commissioners legal department. On August 31 Mr. Cain wrote to Mr. D'Ascensio stating that he engaged the Pascack Pavement Company Inc. to alleviate the pollution.

However, when it became apparent that nothing was done to eliminate the violation, PVSC's chief councel informed Mr. Cain on October 1 that unless the pollution was stopped immediately PVSC would institute suit for injunctive relief. Mr. Cain replied on October 6 but he did not give a schedule. Therefore, Mr. Lubetkin wrote to Mr. Cain on October 18 and insisted that he give a firm timetable as to when the pollution would be halted. Finally Mr. Cain replied on October 27 that Pascack Paving Contractors had informed him that they would start work within three to four weeks.

Despite Mr. Cain's promises, nothing was done,and since Rocket Car Wash continued to pollute Schroeder Brook, as of December 31, 1976, PVSC will institute suit for injunctive relief in January, 1977.

Violation - Scher Brothers, 1 Styertowne Road, Clifton, N.J.
June 21 - December 31, 1976 (J.Parr & T.Costello)

PVSC received complaints of foam in Hughes Lake during rainy weather but Inspector Parr was unable to trace it at first. Finally on June 21, 1976 after checking several manholes in the Industrial East-Industrial West area, Inspectors Parr and Costello observed white foam in a manhole at the east end of the Beecham Products, Inc. plant. This was further traced west to the rear of Scher Brothers, Inc. At the rear of Scher Brothers they found a tank farm composed of five tank truck bodies, mounted on concrete piers and surrounded by an earthen wall.

Violation - Scher Brothers (con't.)

There were large puddles of white liquid on the ground, outside the earthen dike. Obviously this material had been washed by the rain down an 18 inch embankment onto the Beecham property where it flowed into the nearby storm sewer catch basin, thence to McDonald Brook via the storm sewer. Three samples were taken and laboratory analysis confirmed that the material was polluting. Inspectors Parr and Costello met with Mr. Bernard Potash, Plant Manager of Scher and showed him the material on the ground. It was evident that there must have been at least one spill or leak when the material was pumped from the storage tank area through one of the hoses into the building. Mr. Potash stated he would immediately hire a contractor to clean up and remove the remaining material from the ground.

Since, when Inspector Parr returned on June 22, he observed that the material was still on the ground, he informed Mr. D'Ascensio of the lack of action by Scher. Mr. D'Ascensio immediately wrote to Mr. Potash informing him that the polluting discharge was illegal and directing him to immediately take whatever action was necessary to eliminate the source of pollution. Mr. Potash replied on June 24 stating that he had called a contractor on June 22 and had directed him to excavate an area and construct a 2 foot high embankment along the perimeter of the property in order to contain any surface runoff. Any liquid this collected would then be pumped into the sanitary sewer located inside the plant. He stated further that Scher Brothers had completed construction work in the plant and warehouse to contain any accidental spills of detergent or other chemicals. Finally, Mr. Potash stated that major projects had been scheduled for the outside area for the summer months which he hoped would correct all of their pollution problems.

Inspector Parr returned to Scher Brothers on June 28 and observed that work was in progress. On June 30 Inspector Parr returned to Scher Brothers during a heavy rain and observed that some white foamy material had leeched through the soil embankment built and into the storm sewer. He informed Mr. Potash that the work done was inadequate to halt the pollution and further work was needed.

Inspection during the rain on July 7, 1976 confirmed that the prevention work was inadequate since the coconut oil impregnated ground still gave forth a foaming pollutant which flowed into the adjacent Beechan parking lot. On July 14, 1976 Supt. D'Ascensio,by letter, put Scher Brothers on notice that the pollution continued and they were directed to take immediate action to halt it at once.

Mr. B. Potash replied on July 20 and also wrote a progress report on July 26, 1976 informing PVSC that they had a contractor remove areas of surface soil that appeared contaminated and had the material replaced by clean fill. He also stated they were moving ahead on a program to eliminate the use of hoses on their property and to collect as much rain water run-off as possible.

Violation - Scher Brothers (con't.)

Inspector Costello reported that during the heavy rain on July 23, 1976 he saw no foam in the area.

On August 19 Mr. Potash wrote to Mr. D'Ascensio and reviewed what additional work he intended to do to eliminate the violation. He was ready to have the Contractor, Mr. Robert DeVito, dike the rear platform to contain any spills and to line the pit area under the storage tanks with concrete to prevent seepage. He also wished to install an emergency drain line from the corner of the pit through a locked shut off valve to the sanitary sewer to periodically drain the pit of wash water. Next he intended to install piping from the storage tank area to the building to eliminate the use of truck hose as much as possible. Finally the entire area would be seeded.

Although the impregnated ground had been removed and frequent inspections had shown that no ground seepage was reaching the storm sewer, the potential for a pollution still existed and therefore the violation will be carried until the the programs, as outlined by Scher Brothers had been carried out. Mr. Potash reported to Inspector Costello that, although he received a verbal commitment from Mr. DeVito that construction would begin on September 23, no action had been taken and he was considering hiring a new contractor.

Mr. Potash informed Inspector Costello on October 1 that he had received permission from the City of Clifton to install a drain line from the enclosed pit area into the sanitary sewer. By October 22 two bids had been received and, as of October 31, Scher Brothers was awaiting a third bid before proceeding. However, Mr. Potash informed Inspector Costello that he intended to install 2" aluminim piping from the warehouse wall to the pit area to replace the flexible hose now in use. This was to have been done in December, but the severe weather conditions prevented the installation.

Violation - Whippany Paper Board Company, Inc.
1 Ackerman Avenue, Clifton, N.J.
September 8 - December 31, 1976 (T. Costello)

PVSC routinely receives copies of Draft NPDES Permits from USEPA on companies that discharge to the Passaic River and its tributaries within the PVSC district. Inspectors investigate the plants and sample the various discharges to insure they are in compliance with PVSC regulations and the NPDES permit requirement. PVSC received such a permit on Whippany Paper

Violation - Whippany Paper Board Company (con't.)

Board Company and two of the five outlets samples on September 8, 1976 were considered to have values above which PVSC considered acceptable for discharge into the river. They serve outlet #002, filter backwash, and outlet #004 boiler blowdown. Mr. Goldberg and Mr. D'Ascensio met with Mr. Elliott Collier, Building Superintendent, on September 21 and reviewed possible alternatives to eliminate the violations. Mr. Collier was advised that these discharges could either be connected to the sanitary sewer or treated prior to dischage in order to reduce the suspended solids and turbidity of the filter backwash discharge (#002) and to reduce the suspended solids, turbidity and pH of the boiler blowdown (#004). Mr. D'Ascensio confirmed this in writing to Mr. Collier on September 24 and at his request forwarded a copy ot Mr. Robert Shaw, Assistant to the President on September 27. Mr. Shaw replied on September 30 and stated that Whippany Paper intended to repipe the discharges into the sanitary sewer.

On October 6 Mr. Collier informed Inspector Costello that he had ordered the piping necessary to repipe the boiler blowdown to the sanitary sewer. Mr. Andrew Grier, Chief Engineer, informed Inspector Costello on October 27 that he expected delivery of the material on November 2 and that the work would take about three months to complete, also requiring a plant shutdown of about three days.

By November 12 fifty feet of 4" schedule 90 steel pipe had been fabricated and installed. Approximately 50 more feet of line had to be installed in order to complete the job.

Work was temporarily halted due to holiday shutdowns.

Violation - White Metal Products, 220 Goffle Road, Hawthorne, N. J.
December 3-31, 1976 (W. Fiore)

While making routine inspections in Hawthorne on December 3, 1976, Sup't. Cupo and Inspector Fiore observed a slight amount of oil in Goffle Brook. They traced it to White Metal Products and to a discharge from a ground water sump pump located in the basement. Drums of lubricating oil were stored in this room, and occasionally oil was spilled when a transfer was made from the drums to the oil cans. The oil, finding its way into the sump, was discharged with the ground water onto a driveway at the rear of the property, where it then flowed into a catch basin on Goffle Road, and thence into Goffle Brook. The pump operated for about 15-20 seconds, every 10 to 15 minutes.

Violation - White Metal Products (con't.)

Sup't. Cupo and the inspector met with Mr. Donald Sime, Plant Manager, and Mr. Peter Braddock, Plant Superintendent. Sup't. Cupo informed Mr. Braddock that although the sump pump pumped ground water, since it was contaminated with oil, a USEPA permit would be required. Mr. Braddock then informed them that he would examine the possibility of connecting the discharge to the sanitary sewer via an oil separator.

When Sup't. Cupo and Inspector Fiore visited the plant on December 6, Mr. Braddock informed them that they would collect the contaminated water in drums and have a scavenger dispose of it. He also stated that he would contact the Borough Plumbing Inspector for information on connecting to the sanitary sewer.